

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Connect America Fund)	WC Docket No. 10-90
)	
ETC Annual Reports and Certifications)	WC Docket No. 14-58
)	
Developing a Unified Intercarrier Compensation Regime)	CC Docket No. 01-92
)	

**REPORT AND ORDER, ORDER AND ORDER ON RECONSIDERATION, AND
FURTHER NOTICE OF PROPOSED RULEMAKING**

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By the Commission: Chairman Wheeler and Commissioners Clyburn, Rosenworcel, and O’Rielly issuing separate statements; Commissioner Pai concurring in part, dissenting in part and issuing a statement.

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I. INTRODUCTION

1. With this Report and Order, Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking (FNPRM), the Commission adopts significant reforms to place the universal service program on solid footing for the next decade to “preserve and advance” voice and broadband service in areas served by rate-of-return carriers.¹ In 2011, the Commission unanimously adopted transformational reforms to modernize universal service for the 21st century,² creating programs to support explicitly broadband-capable networks. In this Report and Order, Order, Order on Reconsideration, and FNPRM, we take necessary and crucial steps to reform our rate-of-return universal service mechanisms to fulfill our statutory mandate of ensuring that all consumers “have access to . . . advanced telecommunications and information services.”³ In particular, after extensive coordination and engagement with carriers and their associations, we modernize the rate-of-return program to support the types of broadband offerings that consumers increasingly demand, efficiently target support to areas that need it the most, and establish concrete deployment obligations to ensure demonstrable progress in connecting unserved consumers. This will provide the certainty and stability that carriers seek in order to invest for the future in the years to come. We welcome ongoing input and partnership as we move forward to implementing these reforms.

2. Rate-of-return carriers play a vital role in the high-cost universal service program. Many of them have made great strides in deploying 21st century networks in their service territories, in spite of the technological and marketplace challenges to serving some of the most rural and remote areas of the country. At the same time, millions of rural Americans remain unserved. In 2011, the Commission unanimously concluded that extending broadband service to those communities that lacked any service was one of core objectives of reform.⁴ At that time, it identified a rural-rural divide, observing that “some parts of rural America are connected to state-of-the art broadband, while other parts of rural America have no broadband access.”⁵ We focus now on the rural divide that exists within areas served by rate-of-return carriers. According to December 2014 Form 477 data,⁶ an estimated 20 percent of the housing units in areas served by rate-of-return carriers lack access to 10 Mbps downstream/1 Mbps upstream (10/1 Mbps)

¹ 47 U.S.C. § 254(b)(3).

² See *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Inter-carrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform – Mobility Fund*; WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663 (2011) (*USF/ICC Transformation Order and/or FNPRM*); *aff’d sub nom., In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014).

³ 47 U.S.C. § 254(b)(3).

⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17668-69, paras. 4-5 (noting the number of Americans lacking access to terrestrial fixed service providing speeds of at least 3 Mbps downstream and 768 Mbps upstream). See also *id.* at 17681, para. 51 (adopting as a performance goal ensuring universal availability of voice and broadband).

⁵ *Id.* at 17669, para. 7. While the Commission was particularly focused at that time on the impact of differing support mechanisms for price cap carriers and rate-of-return carriers, it remains equally true that there is a disparity in deployment among rate-of-return carriers.

⁶ FCC Form 477 collects information about broadband connections, wired and wireless local telephone services, and interconnected Voice over Internet Protocol (VoIP) services in the 50 states, the District of Columbia, and the Territories and possessions. See 47 U.S.C. § 153(40); Federal Communications Commission, FCC Form 477, Local Telephone Competition and Broadband Reporting, Instructions at 3 (June 30, 2015), <https://transition.fcc.gov/form477/477inst.pdf>. The December 2014 FCC Form 477 data are available at <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>. *FCC Releases Data on Broadband Deployment as of December 31, 2014 Collected Through FCC Form 477*, Public Notice, WC Docket No. 11-10, DA 15-1285 (WCB Nov. 10, 2015).

terrestrial fixed broadband service.⁷ It is time to close the gap, and take action to bring service to the consumers served by rate-of-return carriers that lack access to broadband. We need to modernize comprehensively the rate-of-return universal service program in order to benefit rural consumers throughout the country.

3. For years, the Commission has worked with active engagement from a wide range of interested stakeholders to develop new rules to support broadband-capable networks. One shortcoming of the current high-cost rules identified by rate-of-return carriers is that support is not provided if consumers choose to drop voice service, often referred to as “stand-alone broadband” or “broadband-only” lines. In the *April 2014 Connect America FNPRM*, the Commission unanimously articulated four general principles for reform to address this problem, indicating that new rules should provide support within the established budget for areas served by rate-of-return carriers; distribute support equitably and efficiently, so that all rate-of-return carriers have the opportunity to extend broadband service where it is cost-effective to do so; support broadband-capable networks in a manner that is forward looking; and ensure no double-recovery of costs.⁸ The package of reforms outlined below solve the stand-alone broadband issue and update the rate-of-return program consistent with those principles. We also take important steps to act on the recommendation of the Governmental Accountability Office to ensure greater accountability and transparency in the high-cost program.⁹

4. The Report and Order establishes a new forward-looking, efficient mechanism for the distribution of support in rate-of-return areas.¹⁰ Specifically, we adopt a voluntary path under which rate-of-return carriers may elect model-based support for a term of 10 years in exchange for meeting defined build-out obligations. We emphasize the voluntary nature of this mechanism; no carrier will be required to take model-based support. This action will advance the Commission’s longstanding objective of adopting fiscally responsible, accountable and incentive-based policies to replace outdated rules and

⁷ Rate-of-return carriers report the census blocks to which they offer broadband service. The number of housing units without access to broadband service is based on total housing units reported by the U.S. Census. See Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477> (published December 2014 FCC Form 477 data). Roughly 220,000 census blocks out of slightly over 700,000 census blocks served by incumbent rate-of-return carriers lack 10/1 fixed broadband. Incumbent carriers serving 64 study areas are not offering 10/1 anywhere in their service territory. At the same time, other rate-of-return carriers serving 54 study areas are offering 10/1 to all of their census blocks with housing units.

⁸ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order et al., 29 FCC Rcd 7051, 7137, para. 269 (2014) (*April 2014 Connect America Order and/or FNPRM*).

⁹ Government Accountability Office, FCC Should Improve the Accountability and Transparency of High-Cost Program Funding GAO 14-587 (July 2014), <http://www.gao.gov/assets/670/664939.pdf> (July 2014 GAO High-Cost Report).

¹⁰ We note that the Alaska Telephone Association has proposed an integrated incentive regulation plan for Alaska’s rate-of-return and mobile competitive eligible telecommunications carriers that would, among other things, allow Alaska rate-of-return carriers voluntarily to elect to receive a frozen amount of high-cost support with defined performance obligations to extend and support fixed and mobile broadband service. As proposed, rate-of-return carriers that do not elect to participate in this plan would remain subject to all existing regulations for rate-of-return carriers. See Letter from Christine O’Connor, Alaska Telephone Association, to Marlene Dortch, FCC Secretary, WC Docket No. 10-90, Proposed Rule Changes To Implement the Alaska Plan (filed Nov. 17, 2015); Letter from Christine O’Connor, Alaska Telephone Association, to Marlene Dortch, FCC Secretary, WC Docket No. 10-90, Att. (filed Feb. 20, 2015). We believe that a framework tailored to the unique circumstances that exist in Alaska merits serious consideration and plan to review the comprehensive Alaska proposal in the months ahead. Our action today in no way prejudices any Alaska rate-of-return carrier. They will remain free to elect the voluntary path to the model if they so choose. We defer implementation of the operating expense limits and capital investment allowance for Alaska carriers, pending our consideration of the full Alaska plan. We anticipate other rule changes adopted today will not be implemented until after we take action on the Alaska plan.

programs.¹¹ The cost model, which has proven successful in distributing support for price cap carriers,¹² has been adjusted in multiple ways over more than a year to take into account the circumstances of rate-of-return carriers. We make all necessary decisions to finalize the Alternative Connect America Cost Model (A-CAM) and direct the Wireline Competition Bureau (Bureau) to publish support amounts for this new component of the Connect America Fund (CAF ACAM) and associated deployment obligations for potential consideration by rate-of-return carriers. We will make available up to an additional \$150 million annually from existing high-cost reserves to facilitate this voluntary path to the model over the next decade. This approach will spur additional broadband deployment in unserved areas, while preserving additional funding in the high-cost account for other high-cost reforms.

5. We also make technical corrections to modernize our existing interstate common line support (ICLS) rules to provide support in situations where the customer no longer subscribes to traditional regulated local exchange voice service, i.e. stand-alone broadband. Going forward, this reformed mechanism will be known as Connect America Fund Broadband Loop Support (CAF BLS). This simple, forward-looking change to the existing mechanism will provide support for broadband-capable loops in an equitable and stable manner, regardless of whether the customer chooses to purchase traditional voice service, a bundle of voice and broadband, or only broadband. This will create incentives for carriers to deploy modern networks and encourage adoption of broadband. We expect this approach will provide carriers, including those that no longer receive high cost loop support (HCLS), with appropriate support going forward to invest in broadband networks, while not disrupting past investment decisions.

6. One of the core principles of reform since 2011 has been to ensure that support is provided in the most efficient manner possible, recognizing that ultimately American consumers and businesses pay for the universal service fund (USF).¹³ We continue to move forward with our efforts to ensure that companies do not receive more support than is necessary and that rate of return carriers have sufficient incentive to be prudent and efficient in their expenditures, and in particular operating expenses. Therefore, we adopt a method to limit operating costs eligible for support under rate-of-return mechanisms, based on a proposal submitted by the carriers.¹⁴ We also adopt measures that will limit the extent to which USF support is used to support capital investment by those rate-of-return carriers that are above the national average in broadband deployment in order to help target support to those areas with less broadband deployment.¹⁵ Lastly, in order to ensure disbursed high-cost support stays within the established budget for rate-of-return carriers,¹⁶ building on proposals in the record,¹⁷ we adopt a self-

¹¹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17763, para. 1.

¹² Last year, the Commission implemented Phase II of the Connect America Fund, which will enable rural consumers served by price cap carriers to be connected to modern broadband networks. *See Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 15644 (2014) (*December 2014 Connect America Order*); Press Release, FCC, Carriers Accept Over \$1.5 Billion in Annual Support from Connect America Fund to Expand and Support Broadband for Nearly 7.3 Million Rural Consumers in 45 States and One Territory (Aug. 27, 2015), https://apps.fcc.gov/edocs_public/attachmatch/DOC-335082A1.pdf.

¹³ *USF/ICC Transformation Order*, 26 FCC Rcd 17663, 17670-71, paras. 1, 11. *See also id.* at 17682-83, para. 57 (adopting performance goal of minimizing universal service contribution burden on consumers and businesses).

¹⁴ Letter from Gerard J. Duffy, Regulatory Counsel, WTA – Advocates for Rural Broadband, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed May 29, 2015) (RoR Representatives May 29, 2015 *Ex Parte* Letter).

¹⁵ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed Sept. 12, 2013); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 31, 2014); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed May 1, 2015).

¹⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17674, 17768, paras. 27, 286.

effectuating mechanism to control total support distributed pursuant to the HCLS and CAF-BLS mechanisms. We recognize that many carriers are eager to upgrade their existing broadband networks to provide service that exceeds the minimum standards that the Commission has established for recipients of high-cost support. But first, we must ensure that our baseline service is truly universal. Each dollar spent on upgrading networks that already are capable of delivering 10/1 Mbps service is a dollar not available to extend service to those consumers that lack such service. Taken together, we anticipate that these controls and limitations will encourage efficient spending by rate-of-return carriers, thereby enabling universal service support to be more effectively targeted to support investment in broadband-capable facilities in areas that remain unserved.

7. One of the core tenets of reform for the Commission in 2011 was to “require accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results.”¹⁸ The Commission stated its expectation that rate-of-return carriers would deploy scalable broadband in their communities, but it declined at that time to adopt specific build-out milestones for rate-of-return carriers. Instead, it concluded that it would allow carriers to extend service upon reasonable request.¹⁹ Since that time, rate-of-return carriers have continued to extend service, with a 45 percent increase in availability of 10/1 Mbps service between 2012 and 2014. To build on that progress, we now adopt specific broadband deployment obligations for all rate-of-return carriers, and not just for those that elect the voluntary path to the model. We adopt deployment obligations for all rate-of-return carriers that can be measured and monitored, while tailoring those obligations to the unique circumstances of individual carriers. Those obligations will be individually sized for each carrier not electing model support, based on the extent to which it has already deployed broadband and its forecasted CAF BLS, taking into account the relative amount of depreciated plant and the density characteristics of individual carriers.

8. Another core tenet of reform adopted by the Commission in 2011,²⁰ and unanimously reaffirmed in 2014,²¹ was to target support to areas that the market will not serve absent subsidy. To direct universal service support to those areas where it is most needed, we adopt a rule prohibiting rate-of-return carriers from receiving CAF-BLS support in those census blocks that are served by a qualifying unsubsidized competitor. We adopt a robust challenge process to determine which areas are in fact served by a qualifying unsubsidized competitor. We do not expect the challenge process to be completed before the end of 2016, with support adjustments occurring no earlier than 2017. Carriers may elect one of several options for disaggregating support for those areas found to be competitive. Any support reductions resulting from implementation of this rule will be more effectively targeted to support existing and new broadband infrastructure in areas lacking a competitor.

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¹⁷ Letter from Michael Romano, Senior Vice President – Policy, NTCA—The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Apr. 21, 2015) (on behalf of NTCA, WTA, and NECA) (NTCA/WTA/NECA April 21, 2015 *Ex Parte* Letter).

¹⁸ *Id.* at 17670-71, para. 11; *see also id.* at 17681, para. 51 (adopting for the goal of ensuring universal availability of broadband an outcome measure based on the number of residential, business, and community anchor institutions that newly gain access to broadband and adopting as an efficiency measure the change in the number of homes, businesses and community anchor institutions passed or covered per million USF dollars spent).

¹⁹ *Id.* at 17740-41, para. 206.

²⁰ *Id.* at 17767, para. 281 (concluding that support should not be provided to areas where unsubsidized facilities-based providers already are competing for customers).

²¹ *April 2014 Connect America Order* at 17688-89, para. 68 (stating the Commission’s general policy – and noting this is not limited to price cap territories – is that “all broadband build out obligations for fixed broadband are conditioned on not spending the funds to serve customers in areas already served by an unsubsidized competitor.” (citing *USF/ICC Transformation Order*, 26 FCC Rcd at 17701, para. 103)).

9. Finally, we take action to modify our existing reporting requirements in light of lessons learned from their implementation. We revise eligible telecommunications carriers' (ETC) annual reporting requirements to better align those requirements with our statutory and regulatory objectives. We conclude that the public interest will be served by eliminating the requirement to file a narrative update to the five-year plan. Instead, we adopt narrowly tailored reporting requirements regarding the location of new deployment offering service at various speeds, which will better enable the Commission to determine on an annual basis how high-cost support is being used to "improve broadband availability, service quality, and capacity at the smallest geographic area possible."²²

10. In the Order and Order on Reconsideration, as part of our modernization of the rules governing rate-of-return carriers, we represcribe the currently authorized rate of return from 11.25 percent to 9.75 percent. The rate of return is a key input in a rate-of-return incumbent local exchange carrier (LEC) revenue requirement calculation, which is the basis for both its common line and special access rates, and high-cost support as applicable. The current 11.25 percent rate of return is no longer consistent with the Act and today's financial conditions. Relying primarily on the methodology and data contained in a Bureau Staff Report²³ – with some minor corrections and adjustments – the Commission identifies a more robust zone of reasonableness and adopts a new rate of return at the upper end of this range. This reform will be phased in over six years. This change not only will improve the efficiency of the high-cost program, but also will lower prices for rate-of-return customers in rural areas.

11. In the FNPRM, we propose targeted rule changes to our existing accounting and affiliate transaction rules to eliminate inefficiencies and provide guidance to rate-of-return carriers regarding our expectations for appropriate expenditures. Consumers are harmed when "universal service provides more support than necessary to achieve our goals."²⁴ The statute requires that universal service funds be used for their intended purposes – maintaining and upgrading supported facilities and services.²⁵ We propose to eliminate a number of expenses from inclusion in a rate-of-return carrier's revenue requirement and calculations of high-cost support. We also seek comment on establishing measures governing prudent or reasonable expense levels for certain expense categories. The FNPRM further seeks comment on ways in which the cost allocation procedures between regulated and non-regulated activities and the affiliate transaction rules can be improved to reduce the potential for a carrier to shift costs from non-regulated to regulated services or to the regulated affiliate.

12. Second, we seek comment in the FNPRM on additional options for disaggregating support for those discrete areas that are served by an unsubsidized competitor and other issues associated with implementation of the competitive overlap rule.

13. Third, the FNPRM seeks comment on proposals to adopt a mechanism to provide additional support to unserved Tribal lands. The Commission has long recognized the distinct challenges in bringing communications service to Tribal lands.

14. Fourth, the FNPRM seeks comment on other measures that the Commission could take within the existing budget to encourage further broadband deployment by rate-of-return carriers.

15. Lastly, the FNPRM seeks comment on additional proposals to modify or potentially eliminate certain ETC certifications and reporting obligations so as to streamline ETC reporting requirements.

²² See July 2014 GAO High-Cost Report at 31.

²³ Prescribing the Authorized Rate of Return: Analysis of Methods for Establishing Just and Reasonable Rates for Local Exchange Carriers, Wireline Competition Bureau Staff Report, WC Docket No. 10-90, 28 FCC Rcd 7123 (WCB 2013) (*Staff Report*).

²⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17766-67, para. 280.

²⁵ 47 U.S.C. § 254(e).

16. The actions we take today, combined with the rate-of-return reforms undertaken in the past two years, will allow us to continue to advance the goal of ensuring deployment of advanced telecommunications and information services networks throughout “all regions of the nation.”²⁶ Importantly, they build on proposals from and collaboration with the carriers and their associations. Through the coordinated reforms we take today, we will provide rate-of-return carriers with equitable and sustainable support for investment in the deployment and operation of 21st century broadband networks throughout the country, providing stability for the future. Achieving universal access to broadband will not occur overnight, but today marks another step on the path toward that goal.

II. REPORT AND ORDER

A. Voluntary Path to the Model

1. Background

17. In April 2014, the Commission proposed a transition framework for a voluntary election by rate-of-return carriers to receive model-based support and tentatively concluded that such a framework could achieve important universal service benefits by creating incentives for deployment of voice and broadband-capable infrastructure.²⁷ We sought comment on numerous aspects of such a plan, including a timeframe for implementation, the election process, the transition to model-based support, the impact on the overall budget for rate-of-return areas, and how to adjust the existing cost model for use in such a voluntary election of model-based support.²⁸ In addition to proposing a framework for voluntary election of model-based support, the Commission directed the Bureau to incorporate the results of the study area boundary data collection in the Connect America Cost Model (CAM), which was developed for price cap carriers, and to make such other adjustments as appropriate for use of that model in areas served by rate-of-return carriers.²⁹

18. As directed by the Commission, the Bureau has been refining the Alternative Connect America Cost Model (A-CAM) since the first version was released in December 2014.³⁰ The Bureau released v.1.0.1 on March 16, 2015 updating the competitive coverage in light of the Commission’s decision to adopt 10/1 Mbps as the minimum standard for competitors.³¹ On April 10, 2015, the Bureau published an online, publicly accessible map based on the study area boundary and exchange data that were submitted to the Bureau by rate-of-return carriers and certain state utility commissions, summarized the process used to develop service areas for use in the model, and invited commenters to submit any proposed corrections to interior service area boundaries and central office (Node0) locations.³² On July

²⁶ 47 U.S.C. § 254(b)(3).

²⁷ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7139-43, paras. 276, 283-91. The FNPRM sought comment on the proposal previously submitted by ITTA for a voluntary, two-phase transition plan to model-based support for rate-of-return carriers. Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, (filed Feb. 27, 2014) (ITTA Feb. 27, 2014 *Ex Parte* Letter) (attaching ITTA Plan).

²⁸ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7142-45, paras. 283-299.

²⁹ *April 2014 Connect America Order*, 29 FCC Rcd at 7074, para. 70.

³⁰ *Wireline Competition Bureau Announces Availability of Version 4.2 of the Connect America Phase II Cost Model and the First Version of an Alternative Cost Model Being Developed for Potential Use in Rate-of-Return Areas*, WC Docket No. 10-90, Public Notice, 29 FCC Rcd 16157, 16158 (WCB 2014) (*A-CAM v1.0 Public Notice*).

³¹ *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 1.01 and Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 2067 (WCB 2015) (*A-CAM v1.0.1 Public Notice*) (updating broadband coverage to use minimum speed standard of 10/1 Mbps in determining the presence of a cable or fixed wireless competitor).

³² *Wireline Competition Bureau Publishes Map of Study Areas for Use in Alternative Connect America Cost Model*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 2944 (WCB 2015) (*A-CAM Map Public Notice*). A-CAM
(continued....)

27, 2015, the Bureau invited parties to submit proposed corrections to plant mix input values for individual study areas.³³ The Bureau released version 1.1 on August 31, 2015, updating competitive coverage using FCC Form 477 data.³⁴ On October 8, 2015, the Bureau released A-CAM v2.0, which incorporates updated exterior study area boundaries, interior service area boundaries, and Node0 locations based on extensive input from rate-of-return carriers, and further updated the model in several respects.³⁵ The Bureau also released results that illustrate how different per-location funding caps used in calculating support impact the potential support calculated for a particular study area.³⁶ On December 17, 2015, the Bureau released A-CAM v2.1, which incorporates study area-specific plant mix input values submitted by the carriers and updated broadband coverage data to address concerns raised by rate-of-return carriers that prior versions of the model treated alternative technologies utilized by incumbents or their affiliates as “unsubsidized competitors.”³⁷ With that version, the Bureau also released illustrative results, as requested by ITTA, which excluded from support calculations those census blocks that are served with either fiber to the premises (FTTP) or cable delivering service that meets the Commission’s minimum standards.³⁸ On February 17, 2016, the Bureau released additional illustrative results for A-CAM v2.1 utilizing input values reflecting a 9.75 percent cost of money.³⁹

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Service Area Development Process, at <https://www.fcc.gov/general/rate-return-resources> (A-CAM Service Area Documentation); see also *Wireline Competition Bureau Revises A-CAM Study Area Map*, WC Docket No. 10-90, 30 FCC Rcd 4610 (WCB 2015) (updating a small number of potential Node0 locations); *Wireline Competition Bureau Announces Upcoming Modifications to the Alternative Connect America Cost Model*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 8191 (WCB 2015).

³³ *Wireline Competition Bureau Announces Upcoming Modifications to the Alternative Connect America Cost Model*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 8191 (WCB 2015) (announcing upcoming modifications to A-CAM and inviting commenters to submit proposed corrections to plant mix values for individual study areas). In response to the Public Notice, rate-of-return carriers or their consultants submitted proposed plant mix input values for 528 study areas.

³⁴ *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 1.1 and Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 9777 (WCB 2015) (*A-CAM v1.1 Public Notice*) (updating coverage to reflect preliminary FCC Form 477 broadband deployment data as of December 31, 2014).

³⁵ *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 2.0 and Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 10928 (WCB 2015) (updating, among other things, middle mile, and averaging costs at census block level) (*A-CAM v2.0 Public Notice*).

³⁶ The illustrative results for A-CAM version 2.0 are available at https://transition.fcc.gov/wcb/ACAM_20_ILL_Rpt_Version3_0_FINAL_100615_Public.xlsx. The Bureau also released illustrative results for A-CAM v1.0.1 and A-CAM v1.1 illustrating how different assumptions and funding caps used in calculating support impact the potential support calculated for a particular study area. See *A-CAM v1.0.1 Public Notice*, 30 FCC Rcd 2067; *A-CAM v1.1 Public Notice*, 30 FCC Rcd 9777.

³⁷ *Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 2.1 and Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 14217 (WCB 2015) (*A-CAM v2.1 Public Notice*).

³⁸ The illustrative results for A-CAM version 2.1 are available at https://transition.fcc.gov/wcb/ACAM_21_ILL_Rpt_Version4_0_FINAL_121515.xlsx. See also Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 3 (filed Nov. 19, 2015) (ITTA Nov. 19, 2015 *Ex Parte* Letter).

³⁹ *Wireline Competition Bureau Releases Additional Illustrative Results for Alternative Connect America Cost Model Version 2.1 for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 1139 (WCB 2016) (*A-CAM v2.1 Additional Illustrative Results Public Notice*).

19. Meanwhile, in response to the FNPRM and further development of the record, ITTA, USTelecom and others continued to refine proposals for a voluntary path to model-based support.⁴⁰ On December 4, ITTA and USTelecom jointly submitted draft rules regarding the voluntary path to the model.⁴¹

2. Discussion

20. In this section, we adopt a voluntary path for rate-of-return carriers to elect to receive model-based support in exchange for deploying broadband-capable networks to a pre-determined number of eligible locations. By creating a voluntary pathway to model-based support, we will spur new broadband deployment in rural areas, which will help close the digital divide among rate-of-return carriers. As noted above, there is a wide disparity among rate-of-return study areas regarding the extent of coverage meeting the Commission's minimum standard of 10/1 Mbps service: based on December 2014 FCC Form 477 data, an estimated 20 percent of housing units in census blocks served by rate-of-return carriers lack access to 10/1 Mbps terrestrial fixed broadband service, while other rate-of-return carriers have deployed 10/1 Mbps to nearly all of their study area.⁴² The option of receiving model-based support will provide the opportunity for carriers that have made less progress in their broadband deployment than other rate-of-return carriers to "catch up." By creating defined performance and deployment obligations for specific and predictable support amounts, we are completing the framework envisioned by the Commission in the 2011 *USF/ICC Transformation Order*. We also are taking additional steps to fulfill the Commission's longstanding objective of providing support based on forward-looking efficient costs.⁴³ And finally, the model path may well be a viable option for high-cost companies that no longer receive HCLS due to the past operation of the indexed cap on HCLS, often

⁴⁰ See Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. A & B (filed Oct. 2, 2015) (on behalf of ITTA, NTCA, USTelecom, and WTA) (ITTA/NTCA/USTelecom/WT A Oct. 2, 2015 *Ex Parte* Letter) (describing allocation of model support, revising proposed build-out milestones and proposing non-compliance measures); Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. A (filed Oct. 2, 2015) (on behalf of ITTA, USTelecom, and WTA) (ITTA/USTelecom/WT A Oct. 2, 2015 *Ex Parte* Letter) (updating build-out requirement methodology); Letter from Micah M. Caldwell, Vice President, Regulatory Affairs, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed July 14, 2015) (ITTA July 14, 2015 *Ex Parte* Letter) (filing unredacted version of buildout obligation methodology presentation); Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, (filed June 29, 2015) (ITTA June 29, 2015 *Ex Parte* Letter) (proposing three-track transition mechanism, interim broadband deployment milestones, and carrier-specific build-out requirements); Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed June 3, 2015) (ITTA June 3, 2015 *Ex Parte* Letter).

⁴¹ See Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. (filed Dec. 4, 2015) (on behalf of ITTA and USTelecom) (ITTA/USTelecom Dec. 4, 2015 *Ex Parte* Letter). See also Letter from Derrick B. Owens, Vice President of Government Affairs, and Gerald J. Duffy, Regulatory Counsel, WTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 17, 2015) (WTA Dec. 17, 2015 *Ex Parte* Letter); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 15, 2015) (NTCA Dec. 15, 2015 *Ex Parte* Letter).

⁴² According to the December 2014 data, an estimated 13% of housing units in census blocks served by rate-of-return carriers lacked access even to 4/1 Mbps terrestrial fixed Internet access service. In the 2011 *USF/ICC Transformation Order*, the Commission adopted an initial minimum broadband speed standard of at least 4/1 Mbps. *USF/ICC Transformation Order*, 26 FCC Rcd at 17697, para. 94.

⁴³ Almost 20 years ago, the Commission concluded that forward-looking economic costs—not actual costs—are the proper framework for determining universal service support. In the *Universal Service First Report and Order*, the Commission determined that high-cost universal service support should be based on forward-looking economic cost, but concluded that rural carriers' high-cost support would not be based on forward-looking economic cost until further review. See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8888-89, paras. 199, 203 (1997) (*Universal Service First Report and Order*) (history omitted).

referred to as the “cliff effect.” The Commission took steps to address this problem in December 2014 by modifying the methodology used to adjust HCLS to fit within the existing cap, but that did not restore HCLS to those companies that previously had fallen off the cliff.⁴⁴

21. As discussed more fully below, the election of model-based support places those carriers in a different regulatory paradigm. They no longer will be subject to rate-of-return regulation for common line offerings, and they no longer will participate in the National Exchange Carrier Association’s (NECA’s) common line pool. Effectively, the carriers that choose to take the voluntary path to the model are electing incentive regulation for common line offerings.

22. *Term of Support.* We adopt a 10-year term for rate-of-return carriers electing to receive model-based support. Carriers electing this option will have the certainty of receiving specific and predictable monthly support amounts over the 10 years. Predictable support will enhance the ability of these carriers to deploy broadband throughout the term. In year eight, we expect the Commission will conduct a rulemaking to determine how support will be determined after the end of the 10-year period. We expect that prior to the end of the 10-year term, the Commission will have adjusted its minimum broadband performance standards for all ETCs, and other changes may well be necessary then to reflect marketplace realities at that time.

23. *Broadband Speed Obligations.* In December 2014, the Commission adopted a minimum speed standard of 10/1 Mbps for price-cap and rate-of-return carriers receiving high-cost support.⁴⁵ As a result, price cap carriers accepting model-based support are required to offer at least 10/1 Mbps broadband service to the requisite number of high-cost locations by the end of a six-year support term.⁴⁶ And rate-of-return carriers were required to offer at least 10/1 Mbps broadband service upon reasonable request.⁴⁷ At that time, the Commission also decided that 10/1 Mbps should not be our end goal for the 10-year term for providers awarded support through the Connect America Phase II bidding process.⁴⁸

24. Similarly, here, we recognize that our minimum requirements for rate-of-return carriers will likely evolve over the next decade.⁴⁹ NTCA argues that a universal service program premised upon achieving speeds of 10/1 Mbps risks locking rural America into lower service levels.⁵⁰ We agree that our policies should take into account evolving standards in the future. At the same time, we recognize that it is difficult to plan network deployment not knowing the performance obligations that might apply by the end of the 10-year term. We find that establishing speed and other performance requirements now for carriers electing model-based support is preferable to doing so at some point mid-way through the 10-year term, as it will provide more certainty for carriers electing this voluntary path. Rate-of-return carriers that comply with the performance requirements we establish today for the duration of the 10-year term will be deemed in compliance even if the Commission subsequently establishes different standards that are generally applicable to the high-cost support mechanisms before the end of the 10-year term.

25. We conclude that rate-of-return carriers electing model support will be required to maintain voice and existing broadband service and to offer at least 10/1 Mbps to all locations “fully funded” by the model, and at least 25/3 Mbps to a certain percentage of those locations, by the end of the

⁴⁴ *December 2014 Connect America Order*, 29 FCC Rcd 15682-84, paras. 106-14.

⁴⁵ *Id.* at 15649, para. 15.

⁴⁶ *Id.* at 15651, para. 20.

⁴⁷ *Id.*

⁴⁸ *Id.* at 15655, para. 29.

⁴⁹ The statute defines universal service as “an evolving level of telecommunications services.” 47 U.S.C. §254(c)(1).

⁵⁰ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 26, 2015) (NTCA Oct. 26, 2015 *Ex Parte* Letter).

support term. We adopt with minor modifications ITTA and USTelecom's proposal to require carriers with a state-level density of more than ten locations per square mile to offer at least 25/3 Mbps to at least 75 percent of the fully funded locations in the state by the end of the 10-year term.⁵¹ For administrative convenience, we will determine these density thresholds based on housing units, rather than locations in the model, because other density measures adopted in this Order will rely on U.S. Census data for housing units. We conclude that carriers with a state-level density of ten or fewer, but more than five, housing units per square mile will be required to offer at least 25/3 Mbps to at least 50 percent of the fully funded locations in the state by the end of the 10-year term, and carriers with five or fewer housing units per square mile will be required to offer at least 25/3 Mbps to at least 25 percent of the fully funded locations, as suggested by WTA and other commenters.⁵² The density of each carrier's study area or study areas in a state will be determined using the final 2015 study area boundary data collection information submitted by carriers, and the number of locations will be determined using U.S. Census data. We direct the Bureau to publish a list showing the state-level density for each carrier prior to issuing the public notice announcing the final version of the adopted model, so carriers will know in advance of the timeframe for electing model-based support which deployment obligations will be applicable.

26. In addition, we establish defined requirements for making progress towards extending broadband to capped locations within their service areas. Specifically, carriers electing model support will be required to offer at least 4/1 Mbps to a defined number of locations that are not fully funded (i.e. with a calculated average cost above the "funding cap"). We adopt a modified version of ITTA's proposal, again using housing units to determine density. We will require carriers with a state-level density of more than 10 housing units per square mile to offer at least 4/1 Mbps to 50 percent of all capped locations in the state by the end of the 10-year term. Carriers with a state-level density of 10 or fewer housing units per square mile will be required to offer at least 4/1 Mbps to 25 percent of all capped locations in the state by the end of the 10-year term.⁵³ The remaining capped locations will be subject to the reasonable request standard, and the Commission will monitor progress in connecting these locations as well. We encourage carriers electing the voluntary path to the model to identify any census blocks where they expect not to extend broadband, so that such census blocks may be included in an upcoming auction where parties, including the current provider, may bid for support. The Bureau will announce a date by public notice, no sooner than 60 days after elections are finalized, by which carriers electing model-support may identify any such census blocks. Our goal is to ensure that all consumers have an opportunity to receive service within a reasonable timeframe. If carriers know that support provided through the voluntary path to the model will be insufficient to reach certain parts of their territories within 10 years, identifying these territories now, rather than 10 years from now, will enable the Commission to find another, more timely path to bring broadband to consumers in these areas. Carriers that provide the

⁵¹ See ITTA/USTelecom Dec. 4, 2015 *Ex Parte* Letter, Attach. at 14; ITTA Nov. 19, 2015 *Ex Parte* Letter at 3. See also Letter from Yaron Dori, Counsel for TDS Telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed Nov. 23, 2015) (TDS Nov. 23, 2015 *Ex Parte* Letter); Letter from Yaron Dori, Counsel for TDS Telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed Nov. 12, 2015) (TDS Nov. 12, 2015 *Ex Parte* Letter). No party objected to this proposal submitted in the record, and we modified the requirements in very low density areas to address the concerns expressed by WTA. See also Letter from Jason B. Williams, Vice President – General Counsel, Blackfoot Telecommunications Group, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 1-2 (Blackfoot Feb. 5, 2016 *Ex Parte*) (supporting buildout standard proposed by ITTA/USTelecom with WTA modification).

⁵² See WTA Dec. 17, 2015 *Ex Parte* Letter at 2; Letter from Yaron Dori, Counsel for TDS Telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 21, 2015) (TDS Dec. 21, 2015 *Ex Parte* Letter); Blackfoot Feb. 5, 2016 *Ex Parte* Letter.

⁵³ See Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed Jan. 19, 2016) (ITTA Jan. 19, 2016 *Ex Parte* Letter).

Commission notice within the requisite time would not be required to provide service upon reasonable request in the identified areas.

27. *Usage and Latency.* In the *April 2014 Connect America FNPRM*, the Commission proposed to apply the same usage allowances and latency standards that the Bureau previously had adopted for price cap carriers accepting model-based support to rate-of-return carriers that are subject to broadband performance obligations.⁵⁴ We now adopt a usage threshold for rate-of-return carriers electing model support that should ensure that consumers in these areas have access to an evolving level of service over the 10-year term: we require them to offer a minimum usage allowance of 150 GB per month, or a usage allowance that reflects the average usage of a majority of consumers, using Measuring Broadband America data or a similar data source, whichever is higher. The first prong of the usage requirement—the 150 GB usage allowance—is similar to the approach adopted by the Bureau for price cap carriers to set an evolving level of service over the term of support: we require them to offer a usage allowance that meets or exceeds the usage level of 80 percent of cable or fiber-based fixed broadband subscribers, whichever is higher, according to the most current publicly available Measuring Broadband America usage data.⁵⁵ According to the Commission’s 2015 Measuring Broadband America data, 80 percent of cable broadband subscribers used 156 GB or less per month.⁵⁶ For simplicity, we adopt a monthly usage allowance of 150 GBs for rate-of-return carriers electing to receive CAF-ACAM support. The second prong of the usage requirement—to provide a usage allowance that will allow consumers to use their connections in a way similar to usage of a majority of consumers nationwide—ensures that consumers served by rate-of-return carriers will not be offered service that is significantly different than what is available in urban areas over the full 10-year term. We expect that carriers accepting model-based support will have economic incentives irrespective of these mandates to provide consumers with an evolving array of service offerings, and adopt this second prong as a regulatory backstop to ensure that this happens.

28. In addition, we adopt our proposal to require rate-of-return carriers accepting model-based support to certify that 95 percent or more of all peak period measurements of network round-trip latency are at or below 100 milliseconds.⁵⁷ No party objected to adopting this standard for public interest obligations for rate-of-return carriers. This latency standard will apply to all locations that are fully funded. As discussed below, we recognize there may be need for relaxed standards in areas that are not fully funded, where carriers may use alternative technologies to meet their public interest obligations.

⁵⁴ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7103-04, paras. 149-52. The Commission also proposed to apply the same usage allowances and latency standards to recipients of Connect America Phase II support awarded through a competitive bidding process. *Id.* Several commenters addressed what usage allowances and latency standards should apply in these price cap territories but did not specifically address what usage allowances and latency standards should apply in rate-of-return areas. *See, e.g.,* Independent Telephone & Telecommunications Alliance Comments, WC Docket No. 10-90 et al., at 16-17 (filed Aug. 8, 2014) (ITTA Aug. 2014 Comments) (arguing that less robust requirements for providers that are authorized to receive support pursuant to competitive bidding would contradict Commission’s statutory duty to ensure that consumers in hard-to-serve areas have access to reasonably comparable services at reasonably comparable prices); Rural Associations Comments, WC Docket No. 10-90 et al., at 38 (filed Aug. 8, 2014) (Rural Associations Aug. 2014 Comments) (arguing there is no valid reason to relax the standards expected of support recipients in the context of competitive bidding or any other context).

⁵⁵ *See Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 15060, 15065-68, paras. 14-18 (WCB 2013) (*Phase II Service Obligations Order*). *See also April 2014 Connect America FNPRM*, 29 FCC Rcd at 7103-04, paras. 149-52.

⁵⁶ *See Validated Data Sets – Measuring Broadband America 2015 – Statistical Averages*, at <http://data.fcc.gov/download/measuring-broadband-america/2015/statistical-averages-2014%20v20151117.xlsx>. We note that the median figure for cable subscribers in 2015 was 67 GB per month. *Id.*

⁵⁷ *See April 2014 Connect America FNPRM*, 29 FCC Rcd at 7103-04, paras. 149, 152. *See also Phase II Service Obligations Order*, 28 FCC Rcd at 15068-72, paras. 19-25.

29. *Deployment Obligations.* We require rate-of-return carriers accepting the offer of model-based support to offer at least 10/1 Mbps broadband service to the number of locations identified by the model where the average cost is above the funding benchmark and below the funding per location cap, and at least 25/3 Mbps to a subset of those locations.⁵⁸ These are the locations that are “fully funded” with model-based support. In contrast to the approach taken in price cap areas, where we did not provide support to locations above an extremely high-cost threshold, in rate-of-return areas we will provide support to all census blocks with average costs above the funding benchmark. However, each location within census blocks where the average cost exceeds the funding cap will receive the same amount of support. This funding for locations above the funding cap should be sufficient to preserve existing service and allow carriers to extend broadband service to a defined number of the capped locations, and to the remaining locations upon reasonable request, using alternative technologies where appropriate.⁵⁹ If a carrier identifies census blocks that it will not be able to serve by the date specified by public notice, as discussed above, its support will be reduced to reflect the fewer number of locations, and it will not be subject to the reasonable request standard for those locations if another provider wins those areas in an auction.

30. We decline to adopt an approach that would base a company’s build-out obligations solely on the extent to which its model-based support exceeds its legacy support.⁶⁰ We agree with proponents of such an approach that the locations to which a company will be required to deploy broadband should be based on the A-CAM modeled cost characteristics of each company, but we find that our approach is preferable and more consistent with the overall framework of providing model-based support. Like CAM, A-CAM estimates “the full average monthly cost of operating and maintaining an efficient, modern network,” and includes both capital and operating costs.⁶¹ Although actual costs may differ from forward-looking economic costs at any particular point in time, allowing monthly recovery of the model’s levelized cost means, on average, all carriers will earn an amount that would allow them to maintain the specified level of service going forward over the longer term.⁶²

31. We are not persuaded by the argument that we should tie broadband deployment obligations only to the supplemental support in excess of legacy support and determine the extent of new broadband deployment obligations based on modeled capital costs.⁶³ Our methodology is based on modeled capital and operating costs for each census block and provides the entire support amount calculated for areas above the funding benchmark and below the per-location funding cap; that is, these locations will be “fully funded” by the model under our method.

32. *Interim Deployment Milestones.* We adopt evenly spaced annual interim milestones over the 10-year term for rate-of-return carriers electing model-based support, as proposed by ITTA, NTCA, USTelecom, and WTA with a minor modification.⁶⁴ We adopt enforceable milestones beginning in year

⁵⁸ As discussed below, we adopt a funding threshold of \$52.50. See *infra* para. 53.

⁵⁹ Low-cost locations are subject to the reasonable request standard because the model calculates carriers will be able to recover the cost of serving those locations through end-user revenues alone. Carriers should be prepared to demonstrate in an audit or other context how they evaluate requests under the reasonable request standard. We expect all carriers to be able to produce documents describing the standards they use to process such requests.

⁶⁰ ITTA/USTelecom/WT A Oct. 2, 2015 *Ex Parte* Letter, Attach. A (updating broadband build-out requirement methodology filed by ITTA on June 29, 2015).

⁶¹ *Connect America Fund; High-Cost Universal Service Support*, WC Docket Nos. 10-90, 05-337, Report and Order, 28 FCC Rcd 5301, 5307-08, paras. 11, 15 (WCB 2013) (*CAM Platform Order*).

⁶² *Id.* at 5311, para. 23.

⁶³ ITTA/USTelecom/WT A Oct. 2, 2015 *Ex Parte*, Attach. A at 1-3.

⁶⁴ For administrative efficiency, we will align the deployment milestones and funding term to the calendar year, although we expect to authorize electing carriers to receive CAF-ACAM support before the end of this year.

four, whereas the enforceable milestones proposed by the rural associations would begin in year five.⁶⁵ As shown in the chart below, we require carriers receiving model-based support to offer to at least 10/1 Mbps broadband service to 40 percent of the requisite number of high-cost locations in a state by the end of the fourth year, an additional 10 percent in subsequent years, with 100 percent by the end of the 10-year term. We do not set interim milestones for the deployment of broadband speeds of 25/3 Mbps; we require carriers receiving model-based support to offer at least 25/3 Mbps broadband service to 25 percent, 50 percent or 75 percent of the requisite locations by the end of the 10-year term, depending upon the state-level density discussed above..

Deployment Milestones for Rate-of-Return Carriers Receiving Model-Based Support

Year 1 (2017)	***%
Year 2 (2018)	***%
Year 3 (2019)	***%
Year 4 (2020)	40%
Year 5 (2021)	50%
Year 6 (2022)	60%
Year 7 (2023)	70%
Year 8 (2024)	80%
Year 9 (2025)	90%
Year 10 (2026)	100%

33. We also conclude that rate-of-return carriers receiving model-based support should have some flexibility in their deployment obligations to address unforeseeable challenges to meeting these obligations.⁶⁶ When the Commission adopted flexibility in deployment obligations for price cap carriers accepting model-based support, we recognized that the “facts on the ground” when they are deploying facilities may necessitate some flexibility regarding the number of required locations.⁶⁷ Because rate-of-return carriers electing model-based support may face similar circumstances, we find that providing the same flexibility and allowing deployment to less than 100 percent of the requisite locations is equally appropriate for these carriers as well. We therefore will permit them to deploy to 95 percent of the required number of locations by the end of the 10-year term. To the degree an electing carrier deploys to less than 100 percent of the requisite locations, the remaining percentage of locations would be subject to the deployment obligations for the carrier’s capped locations.⁶⁸ And, as noted above, to the extent the electing carrier does not foresee being able to serve some fraction of the remaining five percent of locations in any way, not even with alternative technologies, we encourage them to identify such census blocks for inclusion in an upcoming auction.

⁶⁵ See ITTA/NTCA/USTelecom/WTa Oct. 2, 2015 *Ex Parte* Letter, Attach. B, Table 1; see also ITTA/USTelecom Dec. 4, 2015 *Ex Parte* Letter, Attach. at 15.

⁶⁶ See TDS Nov. 12, 2015 *Ex Parte* Letter at 1-2 (arguing that the same type of flexibility granted to price cap companies should be afforded to rate-of-return companies electing model support).

⁶⁷ *December 2014 Connect America Order*, 29 FCC Rcd at 15659, paras. 38-39 (requiring deployment to at least 95% of the funded locations).

⁶⁸ The Commission required price cap carriers taking advantage of the flexibility to refund an amount of support based on the number of locations left unserved at the end of the term. *Id.* at 15660-61, para. 42. We do not require rate-of-return carriers to refund support if they deploy to at least 95% of the required locations, but not 100%, because they will use that support to maintain service and deploy new broadband to unserved customers under the standard for capped locations adopted above.

34. We also note that the customer location data utilized in the model reflect location data at a particular point in time. The precise number of locations in some funded census blocks is likely to change for a variety of reasons, which in some circumstances would make it impossible for a carrier to meet its deployment obligations. Carriers that discover there is a widely divergent number of locations in their funded census blocks as compared to the model should have the opportunity to seek an adjustment to modify the deployment obligations. Consistent with our action for Phase II in price cap territories, we delegate authority to the Bureau to address these discrepancies by adjusting the number of funded locations downward and reducing associated funding levels.

35. We are not persuaded that we should decline to impose intermediate deployment milestones for small rate-of-return carriers serving 10,000 or fewer locations in a state, as proposed by WTA.⁶⁹ WTA argues that a 5,000 line carrier that is 60 percent built out and needs to extend broadband to 2,000 more locations cannot economically build out to 200 new locations each year, and that the most efficient way to proceed is to construct all 2,000 locations during one or two construction seasons.⁷⁰ The deployment milestones we adopt do not require evenly spaced new deployment each year, as WTA appears to assume. For instance, the carrier could fully complete its deployment obligation in years 5 and 6, if it found it more efficient to do the whole project over two construction seasons. We would be concerned if such a hypothetical carrier were to wait until years 8 and 9 to begin extending broadband to its unserved customers; we would expect to see some progress toward deploying new broadband after receiving eight years of model-based support. Moreover, carriers that feel uncomfortable with intermediate deadlines may prefer to stay on legacy mechanisms.

36. *A-CAM*. We make the following decisions regarding the final version of A-CAM that will be used to calculate support for carriers that voluntarily elect to receive model-based support. We adopt the model platform and current input values in version 2.1 for purposes of calculating the cost of serving census blocks in rate-of-return areas, with a modification regarding updates to the broadband coverage data. Consistent with the rate represetation decision below, we adopt an input value of 9.75 percent for the cost of money in the model for rate-of-return carriers, which is higher than the input value used for price cap carriers.

37. We also make all necessary decisions to calculate support amounts for rate-of-return carriers electing to receive model-based support. The model will utilize a \$200 per-location funding cap to provide support for all locations above a funding benchmark of \$52.50, which is subject to reduction if necessary to meet demand for model-based support. In addition, we will exclude from support calculations those census blocks where an incumbent or any affiliated entity is providing 10/1 Mbps or better broadband using either FTTP or cable technologies. We conclude that we will update the broadband coverage for unsubsidized competitors in the model to reflect the recently released June 2015 FCC Form 477 data,⁷¹ which will be subject to a streamlined challenge process. We direct the Bureau to take all necessary steps to release the adopted version of the model for purposes calculating support amounts for rate-of-return carriers electing to receive model support.

38. As noted above, over the past year, the Bureau has been continually working on refining the model so that it would be more suitable for use in rate-of-return areas. During this time, rate-of-return carriers and their associations have actively participated in this process, providing input on ways further to improve the model. For instance, the Bureau received and included certain data from nearly half of the approximately 1,100 study areas to better reflect their costs. As a result of this feedback and the resulting adjustments detailed below, we believe that the final version of A-CAM will sufficiently estimate the costs of serving rate-of-return areas and that further adjustments are not necessary.

⁶⁹ See WTA Dec. 17, 2015 *Ex Parte* Letter, at 3-4.

⁷⁰ See *id.*

⁷¹ *FCC Releases Form 477 Data On Fixed Broadband Deployment as of June 30, 2015*, WC Docket No. 11-10, Public Notice, DA 16-279 (WCB 2016) (*June 2015 FCC Form 477 Data*).

39. The first version of A-CAM, released in December 2014, was fundamentally the same as CAM 4.2 to provide a baseline for subsequent modifications.⁷² Although the cost model was originally developed for use in price cap areas, it always has included a size adjustment factor—based on rate-of-return company data—to scale operating expenses for “small, x-small, and xx-small” companies, and has reflected cost differences based on density. Thus, even though the model estimates the forward-looking costs of an efficient provider, it takes into account the higher operating expenses of small rate-of-return carriers operating in rural areas.

40. The Commission recognized the importance of accurate study area boundaries in using a model to calculate support for rate-of-return carriers. Whereas CAM used a commercial data source, GeoResults, to determine study area boundaries for the price cap carriers, the Commission directed the Bureau to incorporate the results of the Bureau’s study area boundary data collection into A-CAM.⁷³ From November 2014 to April 2015, the Bureau undertook a four-step process for adapting the study area boundary data for use in the model.⁷⁴ The first step determined study area boundaries for purposes of the A-CAM by addressing overlaps that remained after the Bureau provided an opportunity to resolve overlaps and voids in the data originally submitted.⁷⁵ The second step aligned the exchanges submitted by rate-of-return carriers (or state commissions on behalf of the incumbent) in the study area data collection with the study area boundaries to be used in the model and modified the exchanges to match the edges of the study area boundary where the submitted boundary of the exchanges differed from the modified study area boundary.⁷⁶ The third step determined the potential locations to be used in the model for the placement of the central office (“Node0” in A-CAM) within each exchange. The final step ensured that each exchange was associated with a single Node0 location.⁷⁷ In April 2015, the Bureau posted on the Commission’s website the A-CAM map based on the study area boundary and exchange data that had been certified by the carriers and submitted to the Bureau.⁷⁸

41. Proposed corrections to study area and service area boundaries and Node0 locations were submitted by parties to the proceeding over the next several months. Recognizing that it would take several months to evaluate and incorporate study area boundary and Node0 locations submitted by interested parties in A-CAM, the Bureau continued to work on updating the model in other ways. In addition, with subsequent versions of the model the Bureau released illustrative results so that interested

⁷² A-CAM v1.0 Public Notice, 29 FCC Rcd at 16158.

⁷³ April 2014 Connect America Order, 29 FCC Rcd at 7074, para. 70. The Bureau had considered using the study area boundary data collection in CAM, but determined that using those data would require additional time and would delay Connect America Phase II implementation without any clear indication that it would materially improve the accuracy of results for price cap carriers. Indeed, in response to the Bureau’s data request, AT&T submitted GeoResults data for some of its study areas, and Verizon submitted data from another commercial vendor. See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 3964, 3996-97, paras. 65-66 (WCB 2014) (*CAM Inputs Order*).

⁷⁴ See *A-CAM Map Public Notice*, 30 FCC Rcd 2944; A-CAM Service Area Development Documentation, available at <https://www.fcc.gov/wcb/ServiceAreaDevelopmentProcess.docx>.

⁷⁵ For modeling purposes, overlapped areas containing roads have to be attributed to a single study area because A-CAM utilizes the road network to route outside plant; the model cannot calculate support for more than one rate-of-return carrier to serve the same area. In addition, some of the study areas had interior “holes,” which were filled in because they may contain roads used in A-CAM to route plant efficiently.

⁷⁶ The exchange boundaries submitted to the Bureau by interested parties in the data collection are not necessarily the same as a particular carrier’s wire center boundaries.

⁷⁷ If exchanges had more than one Node0 location greater than 10 airline miles apart, the Bureau split the exchanges into smaller areas. See A-CAM Service Area Documentation at 9-10.

⁷⁸ A-CAM Map Public Notice, 30 FCC Rcd 2944.

parties could better understand and evaluate how different assumptions used in calculating support impact the potential support calculated for a particular study area.

42. A-CAM contains two modules: a cost module that calculates costs for all areas of the country,⁷⁹ and a support module, which calculates the support for each area based on those costs. The support module allows users to “filter” the cost data to focus on specific geographic areas, such as census blocks that are not served by an unsubsidized competitor. Support amounts depend on the funding benchmark that determines which areas are funded: areas with an average cost below the funding benchmark are not funded because it is assumed that end user revenues are sufficient to cover the cost of serving such areas. Support amounts also depend on the mechanism utilized to keep total support calculated under the model within a given budget.⁸⁰

43. In March 2015, the Bureau released A-CAM version 1.0.1, which incorporated changes to broadband coverage using a minimum speed standard of 10/1 Mbps to determine the presence of a cable or fixed wireless competitor.⁸¹ The Bureau also released illustrative results under seven scenarios illustrating how different assumptions used in calculating support impact the potential support calculated for a particular study area.⁸² Five of the seven scenarios used a funding benchmark of \$52.50, the same benchmark used to calculate support for price cap carriers.⁸³ Two of these scenarios used an extremely high-cost threshold as the mechanism to keep total calculated support with the total budget for rate-of-return carriers. A third scenario utilized a different approach to keep total calculated support within the total budget for rate-of-return carriers: a per-location funding cap. Two scenarios used a \$60 funding benchmark, which was suggested by parties to the proceeding as a mechanism to keep total support within the budget.⁸⁴ This approach presumed that areas with an average cost per location less than \$60 are competitively served by cable operators and therefore should be ineligible for support, which reduced support evenly across all locations in order to meet the budget. These two scenarios and two additional scenarios all exceeded the rate-of-return budget, however, but were published by the Bureau so that parties could consider alternative measures to maintain overall support within the budget, such as a dollar amount reduction in support per location, a percentage reduction in support per location, or a cap on support per location.⁸⁵

⁷⁹ The cost module itself has two parts—one part that figures out an efficient routing to ensure each location is “passed” by a network, namely a network topology, and a second part that calculates the costs associated with that network topology.

⁸⁰ For the price cap carrier model, the Commission directed that the Bureau set an “extremely high-cost threshold” above which the model would not calculate support amounts. As discussed below, we take a different approach for the voluntary path to a model in rate-of-return territories and adopt a per-location funding cap to keep support within the budget for model-based support. See *infra* para. 52.

⁸¹ A-CAM v1.0.1 Public Notice, 30 FCC Rcd 2067. See also *Wireline Competition Bureau Releases Updated Report for Alternative Connect America Cost Model Version 1.01*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 2304 (WCB 2015) (updating comparison to 2014 support amounts). As noted above, in December 2014, the Commission adopted a new minimum speed standard of 10/1 Mbps for recipients of high-cost support that are subject to broadband public interest obligations. *December 2014 Connect America Order*, 29 FCC Rcd at 15649, para. 15. The Bureau used 10 Mbps/768 kbps, as a proxy for 10/1 Mbps, to determine areas served by an unsubsidized competitor until it began using the FCC Form 477 data, instead of the State Broadband Initiative/National Broadband Map (SBI/NBM) data, in A-CAM v1.1.

⁸² The illustrative results are available at https://www.fcc.gov/wcb/ACAM_101_ILL_Rpt_Version1_1_FINAL_031415.xlsx.

⁸³ Two scenarios used a \$60 funding cap, suggested by parties to the proceeding.

⁸⁴ A-CAM v1.0.1 Public Notice, 30 FCC Rcd at 2069 & n.11.

⁸⁵ *Id.* at 2069-70.

44. In May 2015, the Bureau published a revised A-CAM study area boundary map that updated the data used to identify a small number of Node0 locations, which improved the default locations if carriers did not propose any corrections, and provided additional time for carriers to submit Node0 locations.⁸⁶ In July 2015, the Bureau announced upcoming modifications to A-CAM, including a code change to enable the use of company-specific plant mix (aerial, buried, and conduit) input values, instead of the state-wide default values, and invited parties to submit plant mix values for individual study areas. The plant mix values (aerial, buried, and conduit) are broken out separately for urban, suburban, and rural areas, for feeder, distribution, and interoffice facilities. In response to parties filing study area specific plant mix values, the Bureau posted a table showing the classification of census block groups as rural, suburban, and urban used in A-CAM.⁸⁷

45. On August 31, 2015, the Bureau released A-CAM version 1.1, which updated the model to reflect FCC Form 477 broadband deployment data as of December 31, 2014.⁸⁸ The prior version of A-CAM (v1.0.1) used SBI/NBM data as of June 30, 2013.⁸⁹ FCC Form 477 data offers several advantages over the SBI/NBM data. The Form 477 data collection is mandatory, and Form 477 filers must certify to the accuracy of their data. The Bureau also released illustrative results produced using A-CAM v1.1 under three scenarios that illustrate how different per-location funding caps used in calculating support impact the potential support calculated for each rate-of-return study area in the country.⁹⁰

46. On October 8, 2015, the Bureau released A-CAM version 2.0, which incorporated the results of the Bureau's study area boundary data collection and further updated the model for use in rate-of-return areas.⁹¹ After months of review by the Bureau, A-CAM v2.0 incorporated updated exterior study area boundaries, interior service area boundaries, and/or Node0 locations for approximately 400 study areas.⁹² The network topology was updated to reflect these changes, and to address the fact that American Samoa and some coastal islands are served by a rate-of-return carriers. The middle mile network topology was updated to include an undersea route for American Samoa and submarine routes for service areas not connected by roads within the continental United States. To reflect the fact that rate-of-return carriers may have higher middle mile costs, A-CAM v2.0 added two connections from each

⁸⁶ *A-CAM Updated Study Area Map Public Notice*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 4610 (2015).

⁸⁷ *Wireline Competition Bureau Publishes Table of Rural, Suburban, and Urban Census Block Groups in the Alternative Connect America Cost Model*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 8473 (2015).

⁸⁸ *A-CAM v1.1 Public Notice*, 30 FCC Rcd 9777.

⁸⁹ The Bureau previously used 10 Mbps/768 kbps as a proxy for 10/1 Mbps in A-CAM v1.0.1 because this speed tier was used in the SBI/NBM data. Form 477 does not collect bandwidth data in pre-determined tiers as the SBI/NBM data collection did, but instead requires providers to report the maximum advertised upload and download speeds they offer in a census block; therefore, the Bureau no longer needs to use 768 kbps as a proxy for 1 Mbps in A-CAM. *Id.* at 9778 n.8.

⁹⁰ After the Bureau released results produced using the prior version of A-CAM to illustrate seven different scenarios, parties expressed the most interest in the scenarios that utilized a per-location funding cap to keep total calculated support within the total budget for rate-of-return carriers. The Bureau used \$52.50 as the funding benchmark in all three ACAM v1.1 scenarios.

⁹¹ *A-CAM v2.0 Public Notice*, 30 FCC Rcd 10928.

⁹² A table showing by study area code whether there were changes to exterior or interior boundaries and/or Node0 locations was posted at https://transition.fcc.gov/web/A-CAM_v2_Boundary_Node0_Modifications_version_2.zip. In addition, a table showing for each study area the percentage change from A-CAM v1.1 to A-CAM v2.0 in locations, service areas, and investment was made available at <https://www.fcc.gov/encyclopedia/rate-return-resources> shortly after A-CAM v2.0 was publicly released.

regional access tandem ring to an Internet access point to account for the cost of connecting to the public Internet.⁹³

47. Previous versions of A-CAM included five size categories for investments related to land and buildings associated with central offices, and the smallest size central office was for those with fewer than 1,000 lines. Because some service areas in A-CAM have fewer than 250 locations, the updated capital expenditures input table created a new size category for central offices serving fewer than 250 locations, with lower land and building investment for these very small areas than exchanges with 250 to 1,000 locations. A-CAM v2.0 also was modified to incorporate study-area specific plant mix values, but because the Bureau was still reviewing these carrier submissions at that time, they were not reflected in this version of the model.

48. The Bureau also released A-CAM version 2.0 results that illustrate how three different per-location funding caps impact potential support. Although illustrative results for previous versions of A-CAM showed support using a per-location funding cap, A-CAM users could only approximate the Bureau's estimates. In A-CAM v2.0 and subsequent versions of the model, support can be calculated and reported using either an extremely high-cost threshold or a per-location funding cap. Support in A-CAM v2.0 is calculated using the average cost at the census block level for each study area (i.e., costs are averaged at the census block level), meaning all locations in a census block within a carrier's study area are either funded or not funded.⁹⁴

49. On December 17, 2015, the Bureau released A-CAM v2.1, which incorporated study area-specific plant mix values submitted by rate-of-return carriers,⁹⁵ updated broadband coverage data to address issues raised by rate-of-return commenters regarding reported competitive coverage,⁹⁶ and provided an alternative coverage option that excludes from support calculations census blocks served with either FTTP or cable, as requested by one industry association.⁹⁷ The Bureau also released results that illustrate how the two different coverage assumptions used in calculating support impact the potential support calculated for a particular study area; both sets of results are calculated using a \$200 per-location funding cap.⁹⁸ On February 17, 2016, the Bureau released additional illustrative results utilizing input values reflecting a 9.75 percent cost of money.⁹⁹ Raising the cost of money increased costs for all study areas.

50. As directed, the Bureau incorporated the study area data and made other appropriate adjustments to A-CAM over the past year. We find that these modifications are sufficient for purposes of

⁹³ CAM and previous versions of A-CAM had assumed that Internet peering occurred at the regional tandem ring; however more rural areas may in fact be a significant distance from Internet access points, leading to significant costs to physically connect to the Internet.

⁹⁴ Previous versions of A-CAM calculated different costs within a block in some circumstances based on the splitter (Node2) serving that area. This version of the model calculates cost at the sub-block level only in cases where a census block crosses a study area boundary.

⁹⁵ *A-CAM v2.1 Public Notice*, 30 FCC Rcd 14217. Notably, plant mix values were submitted for more than 500 study areas – nearly half of the total study areas – reflecting robust input from carriers regarding the model.

⁹⁶ See, e.g., Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 29, 2015) (NTCA Oct. 29, 2015 *Ex Parte* Letter); Letter from Anthony K. Veach, Counsel for Panhandle Telephone Cooperative, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed June 17, 2015) (Panhandle June 17, 2015 *Ex Parte* Letter).

⁹⁷ See ITTA Nov. 19, 2015 *Ex Parte* Letter, at 3-4.

⁹⁸ These illustrative results are available at https://transition.fcc.gov/wcb/ACAM_21_ILL_Rpt_Version4_0_FINAL_121515.xlsx.

⁹⁹ *A-CAM v2.1 Additional Illustrative Results Public Notice*, DA 16-164.

calculating support amounts for rate-of-return carriers electing to receive model support.¹⁰⁰ A forward-looking cost model is designed to capture the costs of an efficient provider and does not generally use company-specific inputs values. As noted above, however, the A-CAM model takes into account the higher operating expenses of small, rate-of-return carriers operating in rural areas with a company size adjustment factor for operating expenses and cost differences based on density. The most significant modification is the incorporation of the study area boundary data. Although the commercial data set was an appropriate source for price cap carriers, we recognize that they serve significantly larger study areas than any of the more than 1,100 rate-of-return study areas. Because rate-of-return carriers serve smaller areas, it also was appropriate to provide for company-specific plant mix values if carriers found that the state-specific default values did not reflect their outside plant. We note that the average calculated A-CAM loop cost is greater than the largest embedded loop cost reported to NECA over the last fifteen years for the more than 500 study areas that submitted plant mix values.¹⁰¹

51. As discussed in detail below, as part of our modernization of the framework for rate-of-return carriers for both high-cost support and special access ratemaking, we represcribe the currently authorized rate of return from 11.25 percent to 9.75 percent.¹⁰² The Commission primarily relies on the methodology and data contained in the Wireline Competition Bureau's Staff Report,¹⁰³ with some minor corrections and adjustments, identifies a more robust zone of reasonableness between 7.12 percent and 9.75 percent, and adopts a new rate of return at the upper end of this range. A-CAM currently uses an input value for the cost of money of 8.5 percent. The Bureau relied on the same methodology when it adopted that value for use in CAM, but focused solely on data from price cap carriers to select the input value for the price-cap carrier model. Consistent with the Commission's decision below regarding the authorized rate of return for rate-of-return carriers, we now adopt an input value of 9.75 percent for the cost of money in A-CAM, thereby reflecting our consideration of the circumstances affecting rate-of-return carriers.

52. We direct the Bureau to calculate support using a \$200 per-location funding cap, rather than an extremely high-cost threshold. We conclude that this methodology is preferable because it provides some support to all locations above the funding threshold.¹⁰⁴ Even though the locations at or above the funding cap are not "fully funded" with model support, carriers will receive a significant amount of funding – specifically, \$200 per month for each of the capped locations – which will permit them to maintain existing voice service and expand broadband in these highest-cost areas to a defined number of locations depending on density, or upon reasonable request, using alternative, less costly technologies where appropriate. This will allow significantly more high-cost locations to be served than if we were to use a lower funding cap. We note that a \$200 per-location funding cap is significantly higher than what was adopted for purposes of the offer of support to price cap carriers: price cap carriers only receive a maximum amount of \$146.10 in support per location (\$198.60 minus the \$52.50 funding benchmark), while the approach we adopt for rate-of-return areas will provide full support for locations where the average cost is \$252.50 per location.

¹⁰⁰ We thus reject NTCA's argument that further changes to the model should be made. NTCA fails to identify any specific changes that the Commission should make to either the model platform or the input values. See NTCA Dec. 15, 2015 *Ex Parte* Letter at 5.

¹⁰¹ Specifically, the Bureau calculated that the mean ratio of A-CAM loop cost to embedded loop cost was 1.63, the median was 1.42, and the weighted (by locations) average was 1.38. See *A-CAM v2.1 Public Notice*, 30 FCC Rcd at 14218 n.8.

¹⁰² See *infra* Section III.B.

¹⁰³ *Staff Report*, 28 FCC Rcd 7123.

¹⁰⁴ When the Bureau first released A-CAM illustrative results, one of the seven scenarios used a per-location funding cap. This was the methodology that generated the most interest and support among interested parties, and all subsequent illustrative results used this approach.

53. We adopt a funding benchmark of \$52.50, which is the same benchmark the Bureau adopted in its final version of CAM for purposes of making the offer of model-based support to price cap carriers.¹⁰⁵ Based on the extensive record in the Connect America Phase II proceeding, the Bureau adopted a methodology for establishing a funding benchmark based on reasonable end user revenues.¹⁰⁶ The Bureau adopted a blended average revenue per user (ARPU) of \$75 that reflected revenues a carrier could reasonably expect to receive from each subscriber for providing voice, broadband, or a combination of those services.¹⁰⁷ The Bureau also adopted an expected subscription rate of 70 percent for purposes of estimating the amount of revenues a carrier may reasonably recover from end-users, and by extension, the funding benchmark.¹⁰⁸ Applying an assumed ARPU of \$75 and the 70 percent expected subscription rate, the funding benchmark is \$52.50 per location.¹⁰⁹ The record before the Bureau for CAM contained varying estimates and the Bureau acknowledged that forecasting potential ARPU for recipients of model-based support and the expected subscription rate necessarily requires making a number of predictive judgments.¹¹⁰ Nothing in the record before us now persuades us that consumers in rate-of-return carriers are less likely to subscribe to broadband where it is available than consumers served by price cap carriers.

54. We are not persuaded that we should establish a different funding benchmark for purposes of making the offer of model-based support to rate-of-return carriers. During the A-CAM development process, the Bureau has released 15 versions of illustrative results and all but two used a funding benchmark of \$52.50. Two versions used a \$60 benchmark because commenters had suggested that a higher benchmark may be an alternative method for excluding areas served by an unsubsidized competitor.¹¹¹ These and other commenters now support using a per-location funding cap rather than a higher benchmark.¹¹²

55. One commenter argues that a subscription rate of 70 percent is too high and that we should use 50 percent, because the adoption rate for the 10 Mbps speed tier in rural areas was only 47 percent in the *2015 Broadband Progress Report*.¹¹³ Given the increasing demand for higher broadband

¹⁰⁵ *Wireline Competition Bureau Announces Connect America Phase II Support Amounts Offered to Price Cap Carriers to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 3905 (WCB 2015). Support is provided in areas where costs are above a specified benchmark, referred to as the “funding benchmark.” See, e.g., *CAM Inputs Order*, 29 FCC Rcd at 3966, para. 8 & n.8.

¹⁰⁶ *CAM Inputs Order*, 29 FCC Rcd 3964, 4035, para. 170; *Connect America Fund et al.*, WC Docket No. 10-90 et al., Memorandum Opinion and Order, 29 FCC Rcd 14092 (2014) (*ACA AFR Order*) (denying application for review challenging use of 70% subscription rate).

¹⁰⁷ *CAM Inputs Order*, 29 FCC Rcd at 4035-39, paras. 171-76. At the time, the speed standard was 4/1 Mbps, and the Bureau relied on information in the record regarding service offerings at or close to that speed. Now, the carriers electing model-based support will be required to offer 10/1 Mbps service, and 25/3 Mbps service to some subset of their customers, and therefore may earn higher revenues from their broadband services.

¹⁰⁸ *Id.* at 4039-40, paras. 177-79.

¹⁰⁹ *Id.* at 4040, para. 180.

¹¹⁰ *Id.* at 4036, 4040, paras. 173, 179.

¹¹¹ See *A-CAM v1.0.1 Public Notice*, 30 FCC Rcd at 2069 n.11 (citing Letter from Thomas J. Moorman, Counsel to the Nebraska Companies, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, (filed Feb. 2, 2015) (attaching: “A Blueprint for Reforming Rate-of-Return USF” and “Nebraska Companies’ Proposed Rate-of-Return USF Framework, Options and Transitions”)); see also Letter from Mark Walker, Legal Counsel, FCC, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90, (filed Feb. 26, 2015) (submitting into the record an unredacted version of the “A Blueprint for Reforming Rate-of-Return USF”).

¹¹² ITTA Oct. 2, 2015 *Ex Parte* Letter 1, at Attach. A.

¹¹³ Letter from H. Keith Oliver, Senior Vice President-Corporate Operations, Home Telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2, 4-5 (filed Dec. 4, 2015) (Home Telecom Dec. 4, 2015 *Ex Parte* Letter) (citing *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a* (continued....))

speeds, we do not find that a 47 percent adoption rate is a realistic prediction of adoption rates in rural areas over the 10-year term. One reason that subscription rates are lower, on average, in rural areas today is the fact that 10/1 Mbps broadband service is not available to the same extent as urban areas. As broadband service is deployed more widely in high-cost areas with assistance from the federal high-cost program, as well as additional funding from state programs, we would expect subscription rates in rural areas to become more similar to rates in urban areas. In addition, carriers will be required to provide broadband to some locations receiving capped funding, so we expect carriers will be receiving broadband revenue from these customers, as well as any voice revenues. A 50 percent subscription rate would result in a funding benchmark of only \$35, a much lower per-location funding cap, and would reduce the amount of support going to the highest-cost areas given that the amount of money across carriers electing the model will be finite. We decline to adopt a measure that would have the effect of skewing support so drastically to the companies that are, relatively speaking, lower cost compared to other rate-of-return carriers.

56. We also conclude that we should prioritize model support to those areas that currently are unserved and direct the Bureau to exclude from the support calculations those census blocks where the incumbent rate-of-return carrier (or its affiliate) is offering voice and broadband service that meets the Commission's minimum standards for the high-cost program using FTTP or cable technology.¹¹⁴ For purposes of implementing this directive, the Bureau shall utilize June 2015 FCC Form 477 data that has been submitted and certified to the Commission prior to the date of release of this order; carriers may not resubmit their previously filed data to reduce their reported FTTP or cable coverage.¹¹⁵ While we recognize that these deployed census blocks require ongoing funding both to maintain existing service and in some cases to repay loans incurred to complete network deployments,¹¹⁶ we conclude that it is appropriate to make this adjustment to the model in order to advance our policy objective of advancing broadband deployment to unserved customers.¹¹⁷ Our decision to exclude from support calculations this subset of census blocks in no way indicates a belief that once networks are deployed, they no longer require support; rather, we assume that the carriers that have already deployed FTTP or cable broadband have done so within the existing legacy support framework. They will continue to receive HCLS and support through the reformed ICLS mechanism, and thus there is no need for a new mechanism to support

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Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, GN Docket No. 14-126, 30 FCC Rcd 1375, 1429, Table 12 (2015)).

¹¹⁴ This approach is supported by the Nebraska Companies. See Nebraska Companies Jan. 14, 2016 *Ex Parte* Letter 1, Attach. at 7-8; Nebraska Companies Jan. 14, 2016 *Ex Parte* Letter 2, Attach. at 2-4.

¹¹⁵ We note that Form 477 filers must certify to the accuracy of their data.

¹¹⁶ See, e.g., Letter from Michael Romano, Senior Vice President – Policy, NTCA, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90, at 5 (filed Dec. 22, 2015) (NTCA Dec. 22, 2015 *Ex Parte* Letter); Letter from Gerard J. Duffy, WTA Regulatory Counsel, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 11, 2015) (WTA Dec. 11, 2015 *Ex Parte* Letter).

¹¹⁷ See Nebraska Companies Jan. 14, 2016 *Ex Parte* Letter 1, Attach. at 2, 7-8; ITTA Nov. 19, 2015 *Ex Parte* Letter at 3 (arguing this approach is consistent with the Commission's goal to use limited USF support dollars to bring broadband to the greatest number of currently unserved consumers in rate-of-return areas).

their existing deployment.¹¹⁸ Those carriers are not required to elect model-based support and therefore this decision does not drastically reduce their support, as some allege.¹¹⁹

57. When we directed the Bureau “to undertake further work to update the Connect America Cost Model to incorporate the study area boundary data, and such other adjustments as may be appropriate,”¹²⁰ we did not envision revisiting the fundamental decisions made by the Bureau in developing CAM, such as the decision to develop a FTTP model. Adopting a significantly different model, such as a digital subscriber line (DSL) model for use in rate-of-return areas, would have significantly delayed this process and would have been backwards looking.¹²¹ We conclude the changes adopted above should provide sufficient support for carriers interested in the model and account for most of the unique circumstances of different rate-of-return carriers. Therefore, we decline to make further changes to data sources or model design as requested by some commenters.¹²²

58. Finally, we reject arguments in the record that the model should not be adopted because it produces support amounts that vary, in some cases significantly, from the amounts that particular carriers are currently receiving under the legacy mechanisms or that vary from actual costs of fiber-to-the-home construction.¹²³ Some commenters cite a study conducted by Vantage Point comparing A-CAM results to FTTP engineering estimates and actual outside plant costs from 144 wire-center-wide projects to support their arguments that the model is not accurate.¹²⁴ We do not find that the Vantage Point analysis of variability between model results and its proprietary engineering data to be a useful comparison for several reasons. In particular, we are not persuaded by the case study, node-by-node comparisons because the engineering data reflect a different network architecture than the network modeled in A-CAM. A-CAM assumes a Gigabit-Capable Passive Optical Network (GPON), with splitters in the field. Vantage Point’s examples place the splitters in the central office, with one dedicated fiber for each end-user location. Instead of sharing one high-capacity fiber for up to 32 locations for some distance from the central office, the Vantage Point approach includes the cost for up to 32 fibers along the entire distance covered by outside plant.¹²⁵ In addition, Vantage Point’s claim that the model shows consistent deviation

¹¹⁸ By excluding support for areas served with FTTP and cable, we ensure that we are not inadvertently providing funding for carriers that received BIP/BTOP grants to build FTTP networks. See NTCA Dec. 15, 2015 *Ex Parte* Letter, at 5 n.11 (noting that existing USF programs do not support capital investments associated with networks constructed using grant funding).

¹¹⁹ See, e.g., Letter from Matt Johnson, Shawnee Telephone Company, to Marlene H. Dortch, WC Docket No. 10-90 (filed Feb. 4, 2016).

¹²⁰ *April 2014 Connect America Order*, 29 FCC Rcd at 7074, para. 70.

¹²¹ See Letter from David Armistead, General Counsel & Secretary, Hargray Communications Group, Inc. WC Docket Nos. 10-90, 06-122, Attach. A at 5 (filed July 1, 2015) (Hargray July 1, 2015 *Ex Parte* Letter).

¹²² See, e.g., *id.*; Letter from Vincent H. Wiemer, Principal, Alexicon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed June 18, 2015) (Alexicon June 18, 2015 *Ex Parte* Letter).

¹²³ See, e.g., Letter from, Dustin “Dusty” Johnson, Vice President Consulting, Vantage Point, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 6, 2016) (updating analysis by comparing engineering data to results of A-CAM v2.1); NTCA Dec. 15, 2015 *Ex Parte* Letter at 5 (arguing that A-CAM produces significant increases and decreases in support and that cost deviations between the model and either engineered or actual construction costs undermine the utility of the model); Letter from Gerard J. Duffy, Regulatory Counsel, WTA, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed July 15, 2015); Letter from Larry Thompson, Vantage Point, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed July 13, 2015) (presenting analysis of cost model compared to cost of actual FTTP construction); Letter from Michael Romano, Senior Vice President – Policy, NTCA, et. al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 5 (filed June 24, 2015); Alexicon June 18, 2015 *Ex Parte* Letter.

¹²⁴ *Id.*

¹²⁵ We recognize that placing splitters in the central office can lead to higher utilization and lower cost per location for splitters; however, we generally expect the higher cost for fiber materials and installation (including, for

(continued....)

based on cost per subscriber is misleading because Vantage Point uses cost per actual subscriber, whereas A-CAM uses cost per location passed. Even if there were no variation in cost, areas that would be more expensive on a per-subscriber basis would have lower A-CAM calculated costs unless the take rate were 100 percent.

59. As discussed above, A-CAM estimates the average monthly forward-looking economic cost of operating and maintaining an efficient, modern network, and is not intended to replicate the actual costs of a specific company at any particular point in time.¹²⁶ Although one might expect forward-looking costs to capture greater efficiencies and, therefore, be lower than embedded costs, in fact, the forward-looking loop costs from A-CAM for most study areas are higher than embedded loop costs reported by rate-of-return carriers to NECA.¹²⁷ In many cases, model-based support is less than legacy support, not because A-CAM calculates lower costs for a particular study area, but because the model excludes from support calculations those census blocks that are presumed to be served by an unsubsidized competitor offering voice and 10/1 Mbps service. This is consistent with the Commission's policy adopted in the *2011 USF/ICC Transformation Order* to condition Connect America Fund broadband obligations for fixed broadband on not spending the funds in areas already served by an unsubsidized a competitor.¹²⁸ In other cases, model-based support is more than legacy support, not because the model overestimates the cost of serving an area, but because some companies serving high-cost areas previously have "fallen off the cliff" and lost HCLS due to the past operation of the indexed cap. Other companies may have underinvested in their networks. Providing model-based support to these carriers would not provide a "windfall," as some have suggested,¹²⁹ but rather would further the Commission's policy goal of providing appropriate incentives to extend broadband to unserved and underserved areas.

60. *Budget.* Given the benefits and certainty of the model, we believe it is appropriate to use additional high-cost funding from the high-cost reserve account to encourage companies to elect model support.¹³⁰ We therefore adopt a budget of up to an additional \$150 million annually, or up to \$1.5 billion over the 10-year term, utilizing existing high-cost funds to facilitate the voluntary path to the model.¹³¹ By making this funding available to those carriers that are willing to meet concrete and defined

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example, much greater splicing expense) greatly to outweigh any savings gained from better splitter utilization. Vantage Point did not provide enough information in its filings to quantify the impact of dedicated fibers in the feeder plant.

¹²⁶ See *supra* para. 30.

¹²⁷ The Bureau compared A-CAM calculated loop cost to embedded loop costs as filed with NECA over the last 15 years. To make the comparison, the Bureau adjusted A-CAM costs to account for differences between the costs calculated by the model and those filed by carriers: staff subtracted middle-mile (including submarine and undersea) and land and building costs; and estimated the impact of the higher rate of return in NECA filings.

¹²⁸ See, e.g., *USF/ICC Transformation Order*, 26 FCC Rcd 17701, para. 103.

¹²⁹ See, e.g., Alexicon June 18, 2015 *Ex Parte* Letter, Attach. at 7.

¹³⁰ We note that the Commission previously instructed USAC that if contributions to support the high-cost support mechanisms exceed high-cost demand, excess contributions were to be credited to a Connect America Fund reserve account. *USF/ICC Transformation Order*, 26 FCC Rcd at 17847, para. 561; see also 47 CFR 54.709(b). We conclude there is no need to maintain a separate reserve account. To simplify the accounting treatment of high-cost reforms going forward, we now direct USAC to eliminate the Connect America Fund reserve account and transfer the funds to the high-cost account. Going forward, USAC shall credit excess contributions to support the high-cost mechanism to the high-cost account and shall use funds from the high-cost account to reduce high-cost demand to \$1.125 billion in any quarter that would otherwise exceed \$1.125 billion. *USF/ICC Transformation Order*, 26 FCC Rcd at 17847, para. 562.

¹³¹ The Commission sought comment in the *April 2014 Connect America FNPRM* on the impact of adopting a voluntary path to the model on the overall budget for rate-of-return areas and whether adoption of such a plan would have the effect of squeezing the budget available for carriers that do not opt into the plan. *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7143, para. 289.

broadband deployment obligations, including those who will see reductions in their support, we will advance our objective of extending broadband to currently unserved consumers.

61. At this point it is difficult to predict the extent to which companies may be interested in the voluntary path to the model and what the overall budgetary impact might be of such carrier elections.¹³² Even so, we predict that such additional funding will be sufficient to cover significant deployment and support elections to the model, including for those who will receive transition payments for a limited time in addition to model-based support.¹³³ We recognize that carriers may have a variety of reasons for electing model support. In general, those carriers for whom A-CAM produces a significant increase in support over legacy support are more likely to elect model support than those who see little increase or a decrease, assuming that they view the increase in support as sufficient to meet the associated deployment obligations. At the same time, we do not expect that all carriers for whom model-based support is significantly greater than legacy support will make the election: some companies may not be prepared to meet the specific defined broadband build-out obligations that come with such support, while others may not be ready at this time to move to incentive regulation for their common line offering. We describe below how we will adjust the offer of support and obligations to meet the defined CAF-ACAM budget.

62. The first step in determining the budgetary impact is to identify the universe of carriers that will potentially elect model-based support. After the final A-CAM results implementing the decisions we adopt today are released, carriers will indicate within 90 days whether they are interested in electing model-based support. The final released results for the adopted model effectively will create a ceiling—the maximum amount of CAF-ACAM support a carrier may receive with the maximum number of associated locations. Once the carriers indicate their interest, the Bureau will total the amount of model-based support for electing carriers and determine the extent to which, in the aggregate, their model-based support plus transition payments exceed the total legacy support received for 2015 by that subset of rate-of-return carriers.¹³⁴ If that increase is \$150 million or less, no adjustment to the offered support amounts or deployment obligations will be necessary, we will not lower the \$200 per location funding cap, and those carriers that indicated their interest will be deemed to have elected the voluntary path to the model.¹³⁵ The Commission at that time may consider whether circumstances warrant allocation of an additional \$50 million in order to maintain the \$200 per location funding cap. In either of these situations, the initial indication of interest is irrevocable. Absent an additional allocation, the

¹³² The Nebraska Companies estimate that \$200 million would result in nearly an eight-fold increase in the number of locations being built as compared to \$100 million. See Letter from Cheryl L. Parrino, Parrino Strategic Consulting, on behalf of the Nebraska Companies, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. at 2-3 (filed Jan. 14, 2016) (Nebraska Companies Jan. 14, 2016 *Ex Parte Letter* 1) (including a graph showing number of fully-funded locations with various levels of additional funding). See also Letter from Cheryl L. Parrino, Parrino Strategic Consulting, on behalf of the Nebraska Companies, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. at 4 (filed Jan. 14, 2016) (Nebraska Companies Jan. 14, 2016 *Ex Parte Letter* 2) (including a chart showing build-out requirements increase with additional funding); Blackfoot Feb. 5, 2016 *Ex Parte Letter* at 2 (supporting use of at least \$200 million to fund carriers electing model support).

¹³³ Transition payments will decline after the initial year; we do not expect many carriers would be receiving transition payments for an extended period of years.

¹³⁴ For purposes of this calculation, the Bureau will sum the model-based support amounts and transition payments, if any, for carriers for whom model-based support is less than 2015 legacy HCLS and ICLS support. To illustrate with an example, assume that carriers that collectively received \$400 million in legacy support in 2015 elect the voluntary path to the model, and the model-determined support plus transition payments for that subset of carriers is \$540 million. In that instance, no further adjustments would be necessary.

¹³⁵ If demand can be met with the amounts adopted today, unused funding will remain in the high-cost account.

Bureau will lower the per-location funding cap to a figure below \$200 per location to ensure that total support for carriers electing the model remains within the budget for this path.¹³⁶

63. Reducing the funding cap per location would have the effect of reducing the number of fully funded locations that will be subject to defined broadband deployment obligations.¹³⁷ Recognizing that these electing carriers may require more time to consider a revised offer, we will require them to confirm their acceptance of the revised offer within 30 days.

64. *Election Process.* The Bureau will release a Public Notice showing the offer of model-based support for each carrier in a state, predicated upon a monthly funding cap per location of \$200. In addition to support amounts for these carriers, the Bureau will identify their deployment obligations, including the number of locations that are “fully funded” and the number that would receive capped support. Carriers then will be required to make their elections.

65. We adopt our proposal to require participating carriers to make a state-level election, comparable to what the Commission required of price cap carriers.¹³⁸ Our approach prevents rate-of-return carriers from cherry-picking the study areas in a state where model support is greater than legacy support, and retaining legacy support in those study areas where legacy support is greater. Requiring carriers with multiple study areas in a state to make a state-level election will allow them to make business decisions about managing different operating companies on a more consolidated basis. Carriers considering this voluntary path to the model will need to evaluate on a state-level basis whether the support received for multiple study areas, on balance, is sufficient to meet the state-level number of locations that must be served.

66. Because we intend that the model-based path spur additional broadband deployment in those areas lacking service, we conclude that we will not make the offer of model-based support to any carrier that has deployed 10/1 broadband to 90 percent or more of its eligible locations in a state, based on June 2015 FCC Form 477 data that has been submitted as of the date of release of this Order. This will preserve the benefits of the model for those companies that have more significant work to do to extend broadband to unserved consumers in high-cost areas, and will prevent companies from electing model-based support merely to lock in existing support amounts.¹³⁹ We recognize that carriers that are fully deployed in some cases have taken out loans to finance such expansion and therefore may have significant loan repayment obligations for years to come. Carriers that have heavily invested in recent years are likely to be receiving significant amounts of HCLS, however, and will continue to receive HCLS as well as CAF BLS, which is essentially equivalent to ICLS. Therefore, they are not prejudiced by their inability to elect the voluntary path to the model.

67. Carriers should submit their acceptance letters to the Bureau at ConnectAmerica@fcc.gov. To accept the support amount for a state or states, a carrier must submit a letter signed by an officer of the company confirming that the carrier elects model-based support amount as specified in the Public Notice and commits to satisfy the specific service obligations associated with

¹³⁶ For instance, it may be the case that lowering the funding cap to \$160 per location would be sufficient to stay within the budget allocated to the voluntary path to the model for the 10-year term. If, on the other hand, demand for the voluntary path to the model is so great that the funding per location cap would need to be set at a figure lower than Connect America Phase II provides to price caps carriers, i.e. below \$146.10 per location, other measures may be necessary. It is premature to decide today how to address a situation that may not materialize.

¹³⁷ See Nebraska Companies Jan. 14, 2016 *Ex Parte* Letter 1, Attach. at 2-3; Nebraska Companies Jan. 14, 2016 *Ex Parte* Letter 2, Attach. at 4.

¹³⁸ April 2014 *Connect America FNPRM*, 29 FCC Rcd at 7142, para. 287. In response to the FNPRM, ITTA initially argued that elections should be made on a study area basis. See, e.g., ITTA June 3, 2015 *Ex Parte* Letter at 1. However, the proposed rules submitted by ITTA and USTelecom would require election on a statewide basis. See ITTA/USTelecom Dec. 4, 2015 *Ex Parte* Letter, Attach. at 14.

¹³⁹ See Nebraska Companies Jan. 14, 2016 *Ex Parte* Letter 2, Attach. at 3.

that amount of model support. A carrier may elect to decline funding for a given state by submitting a letter signed by an officer of the company noting it does not accept model-based support for that state. Alternatively, if a carrier fails to submit any final election letter by the close of the 90-day election period, it will be deemed to have declined model-based support.

68. As noted above, after receipt of the acceptances, the Bureau then will determine whether the model support of electing carriers exceeds the overall 10-year budget for the model path set by the Commission. If necessary, the Bureau will publish revised model-based support amounts and revised deployment obligations, available only to those carriers that initially indicated they would take the voluntary election of model-based support. Carriers will be required to confirm within 30 days of release of this Public Notice that they are willing to accept the revised final offer; if they fail to do so, they will be deemed to have declined the revised offer.¹⁴⁰

69. If we proceed to the second step of the election process, those carriers that initially accepted but subsequently decline to accept the revised offer will continue to receive support through the legacy mechanisms, as otherwise modified by this Order. If the carrier received more support from the legacy mechanisms in 2015 than it was offered by the final model run, the overall budget for all carriers that receive support through the rate-of-return mechanisms (HCLS and reformed ICLS) will be reduced by the difference between the carrier's 2015 legacy support amount and the final amount of model support offered to that carrier.¹⁴¹ That difference will already have been redistributed amongst the remaining model carriers.¹⁴²

70. *Broadband Coverage.* The current version of the model contains December 2014 Form 477 broadband deployment data and voice subscription data.¹⁴³ We recognize that FCC Form 477 filers certifying that they offer broadband at the requisite speeds to a particular census block may not fully cover all locations in a census block. We find, however, that targeting the model-based support to the census blocks where no competitor has certified that it is offering service is a reasonable way to ensure that we do not provide support to census blocks that have some competitive coverage.¹⁴⁴ Like our decision to exclude from model-support calculations those blocks where the incumbent already has deployed FTTP, we seek to target support to areas of greater need.

¹⁴⁰ It is premature to decide now whether the Bureau should take further steps to re-allocate support of those carriers that decline to accept the revised offer among the remaining electing carriers. If, for instance, only one or several carriers declined to accept the revised offer, it likely would not be worth the administrative burden to offer additional small amounts to the remaining electing carriers. This would merely reduce the amount of additional funding required for the voluntary path to the model and thereby lessen overall demand in the high-cost program. The situation could be different, on the other hand, if a large number of companies that initially elected support choose to decline a revised offer. In such a situation, the funding per location cap would be lowered unnecessarily, to the detriment of achieving our objective of getting broadband to more consumers in high-cost areas.

¹⁴¹ For example, if a carrier received \$1 million in high-cost support in 2015 and accepted an offer of \$900,000 in model-based support, but then in the second step of the process the offer is reduced to \$700,000, and the carrier decides not to accept the \$700,000 offer, the overall budget for the non-model-based carriers will be reduced by \$300,000 going forward.

¹⁴² See Blackfoot Feb. 5 *Ex Parte* Letter at 2 (urging Commission to ensure that those electing model support not have their funding undercut by carriers that initially elect but then decline to accept the refined offer).

¹⁴³ The Form 477 data collection is mandatory, and Form 477 filers must certify to the accuracy of their data.

¹⁴⁴ We are not persuaded by NTCA's argument that there should be a more extensive challenge process to ensure that A-CAM equitably distributes support. See, e.g., NTCA Dec. 15, 2015 *Ex Parte* Letter at 6. Rather, we conclude that the streamlined challenge process we adopt today is sufficient to ensure that CAF A-CAM support is appropriately targeted. Because election of the model is voluntary, individual carriers can make their own business decision as to whether the model-determined amount of support is sufficient to meet the specified obligations.

71. The current version of A-CAM utilizes FCC Form 477 broadband deployment data as of December 31, 2014. While it is unlikely there has been a significant increase in broadband coverage in the intervening year by unsubsidized competitors in the specific blocks eligible for support in rate-of-return areas, i.e. those that are higher cost, we do want to take steps to ensure that support is not provided to overbuild areas where another provider already is providing voice and broadband service meeting the Commission's requirements. We therefore adopt a streamlined challenge process. We direct the Bureau to incorporate into the model the recently released June 2015 FCC Form 477 data,¹⁴⁵ and to provide a final opportunity for commenters to challenge the competitive coverage contained in the updated version of the model. Comments to challenge the coverage data or provide other relevant information will be due 21 days from public notice of the updated version of the model.¹⁴⁶ We note that Form 477 filers are under a continuing obligation to make corrections to their filings.¹⁴⁷ Indeed, in the wake of releasing version 2.1 of the A-CAM, a number of carriers have submitted letters noting corrections in Form 477 filings.¹⁴⁸ We direct the Bureau to review and incorporate as appropriate any Form 477 corrections to June 2015 data that are received in this challenge process, so that these updates are reflected in the final version of the model that is released for purposes of the offer of support.

72. *Tiered Transitions.* We adopt a three-tiered transition for electing carriers for whom model-based support is less than legacy support, based on the ITTA/USTelecom proposed glide path.¹⁴⁹ In addition to model-based support, these carriers will receive a transition amount based on the difference between model support and legacy support. Based on our review of the record received in response to the FNPRM, we now conclude that a tiered transition is preferable because it recognizes the magnitude of the difference in support for particular carriers. At the same time, the transition is structured in a way that prevents carriers for whom legacy support is greater than CAF-ACAM support from locking in higher amounts of support for an extended period of time.

73. *Tier 1.* If the difference between a carrier's model support and its 2015 legacy support is 10 percent or less, in addition to model-based support, it will receive 50 percent of that difference in year one, and then will receive model support in years two through ten.

74. *Tier 2.* If the difference between a carrier's model support and its 2015 legacy support is 25 percent or less, but more than 10 percent, in addition to model-based support, it will receive an additional transition payment for up to four years, and then will receive model support in years five through ten. The transition payments will be phased-down twenty percent per year, provided that each phase-down amount is at least five percent of the total legacy amount. If twenty percent of the difference

¹⁴⁵ See June 2015 FCC Form 477 Data.

¹⁴⁶ A comment that argues in conclusory fashion that the competitive coverage contained in the current version of the model is overstated is unlikely to be persuasive.

¹⁴⁷ Any updated or revised coverage data filed by a party as part of this challenge process should also be reflected in a revision to that party's Form 477 submissions. Filers should follow the established process for making corrections to their FCC Form 477 data, <https://apps2.fcc.gov/form477/login.xhtml#block-menu-block-4>.

¹⁴⁸ See, e.g., Letter from Mark Stemseth, Chief Executive Officer, West Wisconsin Telcom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 21, 2016); Letter from Brian Singleton, President/CEO, Chester Telephone Co, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 11, 2016); Letter from Tony Prather, President, Totelcom Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 6, 2016); Letter from Matt Sparks, General Manager, Baldwin Telecom, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 4, 2016); Letter from Jerry Burmeister, Consulting Manager, Interstate Telcom Consulting, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 4, 2016).

¹⁴⁹ See ITTA/USTelecom Dec. 4, 2015 *Ex Parte* Letter, Attach. at 16 (attaching draft rules relating to a voluntary model-based support plan for rate-of-return carriers). See also ITTA June 29, 2015 *Ex Parte* Letter, Attach. A. We initially had proposed a four-year transition for electing carriers for whom model support is less than legacy support, whereas the original ITTA Plan had proposed a five-year transition. *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7142-43, para. 288.

between model support and legacy support is less than five percent of the total legacy amount, the carrier would transition to model support in less than five years.¹⁵⁰

75. *Tier 3.* If the difference between a carrier's model support and its 2015 legacy support is more than 25 percent, in addition to model-based support, it will receive an additional transition payment for up to nine years, and then will receive model support in year ten. The transition payments will be phased-down ten percent per year, provided that each phase-down amount is at least five percent of the total legacy amount. If ten percent of the difference between model support and legacy support is less than five percent of the total legacy amount, the carrier would transition to model support in less than ten years.

76. We decline to adopt one commenter's proposed "safety net" that would limit a carrier's decrease in support in any year to five percent.¹⁵¹ We conclude that a maximum of 10 years is sufficient time for electing carriers to transition down fully to their model-based support amount. By specifying in advance how this transition will occur, carriers will have all the information necessary to evaluate the possibility of electing model support. Carriers that find ten years insufficient time to transition to a lower amount remain free to remain on the reformed legacy mechanisms. We require rate-of-return carriers receiving transition payments in addition to model-based support to use the additional support to extend broadband service to locations that are fully-funded or that receive capped support.

77. *Oversight and Non-Compliance.* The Commission has previously adopted for "ETCs that must meet specific build-out milestones . . . a framework for support reductions that are calibrated to the extent of an ETC's non-compliance with these deployment milestones."¹⁵² Today, we adopt specific defined deployment milestones for rate-of-return carriers electing model-based support and therefore the previously adopted non-compliance measures will apply.

78. As established in the general oversight and compliance framework in the *December 2014 Connect America Order*, a default will occur if an ETC is receiving support to meet defined obligations and then fails to meet its high-cost support obligations. In section 54.320(d), the Commission has already set forth in detail the support reductions for ETCs that fail to meet their defined build-out milestones.¹⁵³ The table below summarizes the regime previously adopted by the Commission for non-compliance with build-out milestones.¹⁵⁴

¹⁵⁰ For example, if legacy support were \$100 and model support were \$80, 20% of the difference (\$20) is only \$4, which is less than 5% of legacy support (\$5), so in this case the carrier would receive \$95 in year one, \$90 in year two, \$85 in year three and model support (\$80) in year four.

¹⁵¹ See Home Telecom Dec. 4, 2015 *Ex Parte* Letter at 3-4.

¹⁵² We concluded that adopting support reductions that scale with the extent of an ETC's noncompliance will create incentives for ETCs to come into compliance as soon as possible, and that a support reduction scheme that is tied to specific milestones is a clear, straightforward approach. *December 2014 Connect America Order*, 29 FCC Rcd at 15694, para. 142.

¹⁵³ See *December 2014 Connect America Order*, 29 FCC Rcd at 15694-700, paras. 144-54.

¹⁵⁴ ITTA proposes these non-compliance measures for rate-of-return carriers electing model-based support. See ITTA Oct. 2, 2015 *Ex Parte* Letter 1, Attach. B.

Non-Compliance Measures

Compliance Gap	Non-Compliance Measure
5% to less than 15%	Quarterly reporting
15% to less than 25%	Quarterly reporting + withhold 15% of monthly support
25% to less than 50%	Quarterly reporting + withhold 25% of monthly support
50% or more	Quarterly reporting + withhold 50% of monthly support for six months; after six months withhold 100% of monthly support and recover percentage of support equal to compliance gap plus 10% of support disbursed to date

79. *Reporting Requirements.* As discussed below, we require all rate-of-return carriers to submit the geocoded locations to which they have newly deployed facilities capable of delivering broadband meeting or exceeding defined speed tiers.¹⁵⁵ We direct the Bureau to work with USAC to develop an online portal that will enable electing carriers to submit the requisite information on a rolling basis throughout the year as construction is completed and service becomes commercially available, with any final submission no later than March 1st in the following year.¹⁵⁶

B. Reforms of Existing Rate of Return Carrier Support Mechanism

80. For rate-of-return carriers that do not elect to receive high-cost universal service support based on the A-CAM model, we modernize our embedded cost support mechanisms to encourage broadband deployment and support standalone broadband. Specifically, we make technical rule changes to our existing ICLS rules to support the provision of broadband service to consumers in areas with high loop-related costs, without regard to whether the loops are also used for traditional voice services. We rename ICLS “Broadband Loop Support” as a component within the Connect America Fund (CAF BLS). Further, building on proposals in the record from the carriers, we adopt operating expense limits, capital expenditure allowances, and budgetary controls that will be applicable to the HCLS and CAF BLS mechanisms to ensure efficient use of our finite federal universal service resources. These reforms together will better target support to advance the Commission’s longstanding objective of closing the rural-rural divide in which some rural areas of the country have state-of-the-art broadband, while other parts of rural America have no broadband at all. We expect that the combined effect of these measures will be to distribute support equitably and efficiently, and that all rate-of-return carriers will benefit from the opportunity to extend broadband service where it is cost-effective to do so.

1. Background

81. Under our current rules, rate-of-return carriers recover their investment and operating expenses associated with the provision of voice and broadband service through a variety of end-user rates, wholesale special access rates, and universal service mechanisms. Through the Commission’s part 36 jurisdictional separations and part 69 pricing rules, the cost of providing the local loop between the carrier’s central office and the customer’s premises is allocated to the common line (if the loop is used to provide traditional local exchange voice service) or to special access (if the loop is used to provide broadband-only service).¹⁵⁷ These loop costs include the cost of the physical infrastructure between the

¹⁵⁵ See *infra* section II.E.

¹⁵⁶ We expect that the same portal, once implemented, will be used to receive geocoded information from price cap carriers.

¹⁵⁷ See 47 CFR §§ 32.2000 *et seq.*, 36.151-154. “Broadband-only” loops include lines that provide voice service that is not a traditional regulated local exchange voice service. In Reporting Guideline 8.11, NECA has concluded (continued....)

carrier's central office and the customer's premises and the maintenance expenses associated with that infrastructure, as well as other investment and operating expenses not directly related to that infrastructure, but attributed to the loop for the purposes of ratemaking and universal service.

82. The common line costs are further separated between the interstate (25 percent of the common line costs) and intrastate jurisdictions (75 percent).¹⁵⁸ Interstate common line costs are recovered through a combination of the federal subscriber line charge (SLC) and ICLS.¹⁵⁹ ICLS provides carriers with the difference between their interstate common line costs and their end-user revenues, which are limited due to the cap on SLCs. Intrastate common line costs are recovered through local rates subject to state regulatory authority, state universal service mechanisms where applicable, and HCLS. HCLS is a federal high-cost universal service mechanism that reduces the amount of costs that a high-cost, rate-of-return carrier needs to recover through local rates.¹⁶⁰

83. Today, broadband-only loop costs are allocated to the interstate special access category.¹⁶¹ Within the special access category, carriers allocate costs among a variety of services, including the transmission used to provide retail wireline broadband Internet access service, through the tariffing process and recover them from their customers. Many carriers that are members of the NECA traffic-sensitive pool participate in its wholesale DSL tariffs.¹⁶² Frequently, the wholesale DSL services are sold to affiliates that, in turn, offer retail broadband Internet access services to residential consumers. Unlike the loop costs allocated to the common line, there are no universal service support mechanisms that support high loop costs allocated to special access for broadband-only loops.

84. Over the last five years, the Commission has sought comment multiple times on proposals to extend high-cost universal service support to broadband-only loops. In the 2011 *USF/ICC Transformation FNPRM*, the Commission sought comment on a proposal by NTCA and other associations to create a single broadband-oriented mechanism for rate-of-return carriers to recover loop costs that would ultimately replace the existing high-cost mechanisms.¹⁶³ NTCA and the other associations continued to refine their proposal, and in 2013, the Bureau issued a Public Notice seeking comment on NTCA's revised proposal to provide high-cost support for broadband-only loops.¹⁶⁴ In April

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that the carrier must offer a regulated basic local exchange service on a common carrier basis in order to report its loop costs for universal service and NECA tariff and pool purposes. National Exchange Carrier Association, Inc. Reporting Guidelines, Section 8.11 Providing Local Exchange Telephone Service Using Voice over Internet Protocol (VoIP) Technology (issued Jan. 2008).

¹⁵⁸ See 47 CFR § 36.154.

¹⁵⁹ See *id.* §§ 54.901, 69.104. A small amount of interstate common line revenues are recovered from end users for line port costs in excess of basic analog service and special access surcharges for loops that bypass the central office switch. See *id.* § 54.901(a).

¹⁶⁰ See *id.* §§ 54.1301 – 54.1310. HCLS provides support for up to 75% of a carrier's unseparated loop costs (*i.e.*, up to the full amount in the intrastate jurisdiction) above a specified threshold. *Id.* § 54.1310. HCLS has been subject to an indexed cap for decades, which limits the total amount of HCLS provided to rate-of-return carriers.

¹⁶¹ See *id.* § 36.154(a).

¹⁶² See National Exchange Carrier Association, Inc., Tariff No. 5, at 8.1, 17.1. The NECA tariff offers DSL service that includes both loop and non-loop costs associated with the provision of broadband-only service. The NECA tariff also offers a Voice-Data service that recovers only the non-loop costs associated with a voice-broadband bundled service because, for those customers, the loop costs are allocated to the common line. See *id.* at 8.1.2.(e).

¹⁶³ *USF/ICC Transformation Order*, 26 FCC Rcd at 18048-50, paras. 1031-43. Carriers are not required to participate in the NECA pool; indeed, they are free today to detariff their DSL transmission service.

¹⁶⁴ *Wireline Competition Bureau Seeks Comment on Options to Promote Rural Broadband in Rate-of-Return Areas*, WC Docket No. 10-90, Public Notice, 28 FCC Rcd 7201, 7202-04, paras. 2-7 (WCB 2013) (*May 2013 Public Notice*).

2014, the Commission sought comment to develop the record further on NTCA's proposal to support broadband-only loops and on alternative approaches, including a rule under which no new investment would be included in cost studies used to determine HCLS and ICLS after a date certain and instead new investment would be recovered through a new mechanism.¹⁶⁵ At that time, the Commission articulated four principles for a reformed system: that it calculate support amounts that remain within the existing rate-of-return budget; that it distribute support fairly and equitably among carriers; that it be forward looking; and that it ensure no double recovery of costs occurs.¹⁶⁶

85. In April 2015, NTCA filed a detailed proposal for "Data Connection Support" (DCS), a broadband-only loop support mechanism.¹⁶⁷ NTCA explained that DCS would operate as an "ICLS-like" mechanism that provides carriers with the difference between their broadband-only loop costs and an estimated amount of broadband-related loop revenues.¹⁶⁸ In August 2015, USTelecom filed, for discussion purposes, a proposal that would create a unified high-cost support mechanism for new investment that would support voice and broadband-capable loops, as well as broadband-only loops, while retaining the existing mechanisms for cost recovery for existing investment.¹⁶⁹ USTelecom further revised this proposal through subsequent *ex parte* letters.¹⁷⁰ Meanwhile, commenters also urged the Commission to make technical corrections to the existing rules to provide support for standalone broadband.¹⁷¹ On February 5, 2016, USTelecom and NTCA filed a document that "memorializes elements [that they] view as important to an effective overall reform."¹⁷²

2. Support for Broadband-Only Loop Costs for Rate-of-Return Carriers

86. We now adopt technical changes to our existing ICLS rule to provide support for rate-of-return carriers' broadband-capable network loop costs, without regard to whether the loops are used to provide voice or broadband-only services.¹⁷³ As explained above, although our existing HCLS and ICLS rules both support the loop costs associated with broadband-capable networks, they were developed specifically to support the costs of voice networks and do not provide cost recovery for loop costs

¹⁶⁵ See April 2014 Connect America FNPRM, 29 FCC Rcd at 7136, para. 267.

¹⁶⁶ *Id.* at 1737, para. 269.

¹⁶⁷ NTCA/WT/NECA April 21, 2015 *Ex Parte* Letter.

¹⁶⁸ *Id.* at 1.

¹⁶⁹ Letter from B. Lynn Follansbee, Vice-President – Law & Policy, USTelecom, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Aug. 10, 2015) (USTelecom August 10, 2015 *Ex Parte* Letter). USTelecom also proposed a new mechanism for cost recovery for existing investment in loops used to provide broadband-only service. *Id.*

¹⁷⁰ See Letter from B. Lynn Follansbee, Vice-President – Law & Policy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Sept. 25, 2015) (USTelecom September 25, 2015 *Ex Parte* Letter); Letter from B. Lynn Follansbee, Vice-President – Law & Policy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 2, 2015) (USTelecom October 2, 2015 *Ex Parte* Letter).

¹⁷¹ See, e.g., Letter from Michael Romano, Senior Vice President – Policy, NTCA—The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 21, 2015); Letter from Gerard J. Duffy, Regulatory Counsel, WTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, et al. (filed Apr. 29, 2015); Letter from Glenn S. Richards, Executive Director, Voice on the Net Coalition, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, et al. (filed July 31, 2015).

¹⁷² Letter from B. Lynn Follansbee, Vice President – Law & Policy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC No. 10-90 (filed Feb. 5, 2016) (USTelecom/NTCA Feb. 6, 2016 *Ex Parte* Letter).

¹⁷³ For simplicity in this discussion, we use the term voice-broadband and broadband-only to refer to services that include a data component, even when the Internet access provided does not meet the Commission's defined minimum speed standard for purposes of the high-cost program of 10/1 Mbps.

associated with broadband-only services.¹⁷⁴ After careful consideration of the various alternatives presented in the record, we conclude that the simplest, most effective and administratively feasible means to address this concern is to expand the ICLS mechanism to permit recovery of consumer broadband loop costs.¹⁷⁵ As noted above, to recognize the scope of the expanded mechanism and fulfillment of our commitment to create a Connect America Fund for rate-of-return carriers, we change the name of ICLS to CAF BLS.

87. By providing support for the costs of broadband-only loops, while continuing to provide cost recovery for voice-only and voice-broadband loops, the expanded CAF-BLS mechanism will create appropriate incentives for carriers to deploy modern broadband-capable networks and to encourage consumer adoption of broadband services. The difference in loop-related expenses between broadband-only and traditional voice service over broadband-capable loops tends to be quite small, but the cost recovery varies significantly. Indeed, different treatment of loop cost recovery can be triggered by a customer's decision to drop the voice component of a voice-data bundle, without any other changes in service by the carrier.¹⁷⁶ Similar changes to loop cost recovery occur if a carrier offers an IP-based voice service rather than a traditional voice service: only loops used to provide regulated local exchange voice service (including voice-data bundles) are eligible for high-cost universal service under our current rules.¹⁷⁷ Supporting all consumer loops will minimize the discrepancies in treatment between those service offerings, while removing potential regulatory barriers to taking steps to offer new IP-based services in innovative ways. Thus, this step advances the statutory goal of providing access to advanced telecommunications and information services in all regions of the Nation, particularly in rural and high-cost areas, and the principle adopted in the *USF/ICC Transformation Order* that universal service support should be directed where possible to networks that provide advanced services, as well as voice services.¹⁷⁸

88. Implementing this expansion of the traditional ICLS mechanism requires several actions. As noted above, the current ICLS mechanism operates by providing each carrier with the difference between its interstate common line revenue requirement and its interstate common line revenues. Going forward, CAF-BLS also will provide cost recovery for the difference between a carrier's loop costs

¹⁷⁴ Pursuant to the Commission's longstanding "no barriers" policy, the costs of broadband-capable facilities may be recovered through HCLS and ICLS, but only to the extent that they are allocated to the common line because they are used to provide traditional local exchange service, i.e., voice service. *Federal-State Joint Board on Universal Service; Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, CC Docket Nos. 96-45 and 00-256, Fourteenth Report and Order, Twenty-second Order on Reconsideration, Further Notice of Proposed Rulemaking, and Report and Order, 16 FCC Rcd 11244, 11322, para. 200 (2001). If those facilities are used to provide broadband-only service, the associated expenses are allocated to interstate special access. 47 CFR § 36.154(a).

¹⁷⁵ In a pending Petition for Reconsideration and Clarification of the *USF/ICC Transformation Order*, NECA, OPASTCO, and WTA argued, among other claims, that the Commission should adopt a Connect America Fund mechanism prior to imposing broadband obligations on rate-of-return carriers. Petition for Reconsideration and Clarification of the National Exchange Carrier Association, Inc.; Organization for the Promotion and Advancement of Small Telecommunications Companies; and Western Telecommunications Alliance, WC Docket 10-90, et al. at 2-6 (filed Dec. 29, 2011) (NECA et al. Petition). Our existing mechanisms have provided support for broadband-capable networks for more than a decade, and we are now adopting changes to our rules to provide support explicitly for broadband-only lines. We therefore deny the Petition as moot.

¹⁷⁶ Pursuant to 47 CFR § 36.154, the loop costs ("Exchange line Cable & Wire Facilities") are assigned on an average cost basis to common line (when the customer subscribes to traditional local exchange (voice) service) or special access (when the customer subscribes to broadband-only service).

¹⁷⁷ See 47 CFR §§ 54.901(a) (limiting ICLS cost recovery to the interstate common line revenue requirement), 54.1308(a) (limiting HCLS cost recovery to costs attributable to common line).

¹⁷⁸ 47 U.S.C. § 254(b)(2), (b)(3); 47 CFR § 54.7(b); see *USF/ICC Transformation Order*, 26 FCC Rcd at 17679, paras. 43-45.

associated with providing broadband-only service, called the “consumer broadband-only loop revenue requirement” and its consumer broadband-only loop revenues. In this Order, we adopt rules that define the consumer broadband-only loop costs as the same, on a per-line basis, as the costs that are currently recoverable for a voice-only or voice/broadband line in ICLS.¹⁷⁹ To avoid double-recovery, an amount equal to the consumer broadband-only revenue requirement will also be removed from the special access cost category.¹⁸⁰ For consumer broadband-only loop revenue, CAF-BLS will initially impute the lesser of \$42 per loop per month or its total consumer broadband loop revenue requirement.¹⁸¹ As described below, we also adopt today a budgetary constraint on the total aggregate amount of HCLS and CAF-BLS support provided for rate-of-return carriers to ensure that support remains within the established budget for rate-of-return territories.¹⁸² To the extent that budgetary constraint reduces CAF-BLS support in any given year, any CAF BLS provided will be first applied to ensure that each carrier’s interstate common line revenue requirement is met.¹⁸³ If, due to the application of the budgetary constraint, additional revenue is required to meet its consumer broadband loop revenue requirement, that revenue may be recovered through consumer broadband loop rates, even if that results in a carrier charging a broadband loop amount greater than \$42 per loop per month.¹⁸⁴

89. This approach meets the four principles of reform that we previously articulated in the *April 2014 Connect America Further Notice*, while also being simple and easy for affected carriers to understand and implement. The budget constraint ensures that the support amounts will remain within the existing rate-of-return budget. The CAF-BLS mechanism distributes support fairly and equitably among carriers. Consistent with our authority to encourage the deployment of the types of facilities that will best achieve the principles set forth in section 254(b),¹⁸⁵ it will allow carriers to receive federal high-cost universal service support for their network investment regardless of what services are ultimately purchased by the customer. When combined with the capital expense and operational expense limitations adopted below, CAF BLS will help ensure that no carrier collects support for excessive expenditures. The CAF-BLS mechanism is forward-looking because it completes the Commission’s modernization of the high-cost program to focus on broadband, consistent with the evolution of technology toward IP networks.

90. And finally, the reforms we adopt today avoid double-recovery of costs by removing from special access the costs associated with broadband-only loops and then ensuring that the carriers’ regulated revenues match their revenue requirements. We find this approach administratively preferable to alternative approaches. For example, one possibility would be to expand both ICLS and HCLS to include broadband-only loops. However, HCLS was designed to support local (i.e., intrastate) voice rates and does not take into account the costs or revenues from broadband-only services. In addition, the schedule for developing HCLS amounts is incompatible with the schedule for developing wholesale transmission tariffs for broadband services. As a result, the Commission’s principle of avoiding double

¹⁷⁹ See *infra* section II.C.

¹⁸⁰ *Id.* Carriers will be required to certify to USAC, as part of their CAF-BLS data filings, that they have complied with our cost allocation rules and are not recovering any of the consumer broadband-only loop cost through the special access cost category.

¹⁸¹ Consumer broadband-only loop charges are discussed in section II.C, below. For true-up purposes, CAF BLS will impute the consumer broadband rate the carrier was permitted charge, if it is higher than the amount that would be imputed otherwise. *Id.*

¹⁸² See *infra* section II.B.6.

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ See 47 U.S.C. § 254(b) (declaring principles upon which the universal service program should be based, including other principles that the Joint Board and the Commission determine are necessary); *USF/ICC Transformation Order*, 26 FCC Rcd at 17685, para. 64.

recovery could not be met without making significant changes to either the HCLS rules or the tariff process. Alternatively, the Commission could adopt a separate mechanism to support broadband-only loops, as proposed by NTCA.¹⁸⁶ In practice, the expanded CAF-BLS mechanism will be operationally similar to NTCA's proposed DCS mechanism. Both essentially provide support for broadband-only costs to the extent that they exceed an imputed revenue amount, but allow the carrier to recover additional revenues through tariffs to the extent that the budgetary constraint prevents them from meeting their revenue requirement. We find, however, that expanding the CAF-BLS mechanism to include broadband-only loops will further reduce unnecessary distinctions between the two categories of loops, which will advance our objective to move the existing program to broadband. Finally, we considered the "bifurcated" approach developed in the record by USTelecom with significant input from other parties.¹⁸⁷

91. The latter approach would create a wholly new mechanism and bifurcate investment and associated expenses between old and new mechanisms. We appreciate the good faith efforts of numerous parties to determine how such a mechanism might be implemented and to estimate its potential impact.¹⁸⁸ While it had a number of merits, we have come to the conclusion that the approach we adopt today is simpler and sufficient to accomplish our goals for reform.¹⁸⁹ We therefore choose to build upon the framework of an existing rule that carriers are familiar with, which will not require significant changes to their internal existing accounting systems and other processes for the development of cost studies. Carriers should be able readily to estimate their future support flows under this revision to the existing rule.

92. *Consumer broadband loop revenue benchmark.* For the purpose of calculating CAF BLS, we adopt a revenue imputation of \$42 per loop per month, or \$504 per loop per year for consumer broadband-only loops, except as described below. This amount is consistent with other recent estimates of reasonable end-user revenues, when adjusted for context. For example, in adopting a cost model to be used for the Phase II offer of support to price cap carriers, the Bureau based its support threshold for

¹⁸⁶ NTCA/WTN/NECA April 21, 2015 *Ex Parte* Letter.

¹⁸⁷ Letter from Michael Romano, Senior Vice President – Policy, NTCA—The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 17, 2015); NTCA Dec. 15, 2015 *Ex Parte* Letter; Letter from Michael Romano, Senior Vice President – Policy, NTCA—The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 24, 2015) (NTCA November 24, 2015 *Ex Parte* Letter); Letter from Michael Romano, Senior Vice President – Policy, NTCA—The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 6, 2015) (NTCA November 6, 2015 *Ex Parte* Letter); USTelecom August 10, 2015 *Ex Parte* Letter.

¹⁸⁸ See, e.g., Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 16, 2015); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 15, 2015); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 11, 2015) (NECA December 11, 2015 *Ex Parte* Letter); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 2, 2015); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 19, 2015) (NECA November 19, 2015 *Ex Parte* Letter); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 17, 2015); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 13, 2015); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 6, 2015); Letter from Regina McNeil, Vice President of Legal, National Exchange Carrier Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Sept. 11, 2015).

¹⁸⁹ USTelecom August 10, 2015 *Ex Parte* Letter.

model-based support on an average revenue per user (ARPU) of \$75.¹⁹⁰ That ARPU, however, was an all-inclusive estimate of end-user revenues for broadband and voice services, while the benchmark we adopt here presumes that carriers would still need additional end-user revenues to cover non-loop related costs, such as middle-mile costs. Similarly, for a broadband service of 10/1 Mbps and unlimited usage, the Commission's 2015 reasonable comparability benchmark was \$77.81.¹⁹¹ NECA estimated a median non-loop cost of \$34.95 per month to provide 10/1 Mbps for its member carriers that participate in its "DSL voice-data" tariff.¹⁹² Subtracting the monthly revenue associated with those non-loop revenues from the ARPU used for the model support threshold or the reasonable comparability benchmark for retail broadband Internet access suggests that \$42 is an appropriate estimate for monthly end-user revenue for the consumer broadband loop costs,¹⁹³ the remainder of which will be recovered through CAF BLS, subject to the budgetary constraint discussed below.

93. There are two cases in which we will impute a different consumer broadband loop revenue amount than \$42 per loop per month. First, when a carrier's consumer broadband loop revenue requirement is less than \$42 per loop per month, CAF BLS will only impute the actual consumer broadband loop revenue requirement.¹⁹⁴ For example, if a carrier has 1,000 consumer broadband-only loops with an average cost of \$41 per month, its imputed annual revenue would be \$492,000 ($\$41 * 1,000 * 12$), rather than \$504,000 ($\$42 * 1,000 * 12$). Without this exception, consumer broadband loops could create "negative" CAF-BLS amounts for some carriers in its initial calculation. The effect of the negative CAF-BLS amounts would be to reduce overall CAF BLS and require above-cost consumer broadband rates to replace lost CAF BLS that would otherwise subsidize voice loops. This exception will prevent a cross-subsidy of voice service by consumer broadband-only service that may not otherwise be necessary.

94. The second exception is that, solely for the purpose of calculating true-ups, CAF BLS will impute the consumer broadband rate the carrier was permitted to charge, if it is higher than the amount that would be imputed otherwise. For example, if a carrier had 1,000 loops and, as a result of the operation of the budgetary constraint, its consumer broadband loop rate was \$43 per month, the annual revenue imputation would be \$516,000 ($\$43 * 1,000 * 12$), rather than \$504,000.¹⁹⁵ Using actual revenues for true-ups in this way will recognize additional revenue that the carrier would have received and prevent duplication of cost recovery between CAF BLS and special access rates. This will result in a carrier having imputed consumer broadband-only revenue that exceeds its consumer broadband-only revenue requirement, but that is necessary to ensure that both its interstate common line revenue

¹⁹⁰ *CAM Inputs Order*, 29 FCC Rcd at 4036-4039, paras. 172-76. The Commission analyzed several sources of data in the record regarding rates for voice and data-only services in areas where 4/1 Mbps service was available, and used its predictive judgment to forecast that \$75 per subscriber per month was a reasonable expectation of revenues. *Id.* We note that it may be reasonable for carriers to expect higher revenues per subscriber where they offer 10/1 Mbps service, as they are obligated to do pursuant to this Order. *See supra* n. 107.

¹⁹¹ FCC Reasonable Comparability Benchmark Calculator, <https://www.fcc.gov/encyclopedia/reasonable-comparability-benchmark-calculator> (last visited Mar. 29, 2016).

¹⁹² NECA November 19, 2015 *Ex Parte* Letter, Attach. 1, Exh. 1. We note that carriers already are collecting \$6.50 in SLC revenues before they are able to receive ICLS; the revenue imputation figure we adopt today (\$42) is \$35.50 above that SLC amount.

¹⁹³ The difference between \$75 and \$34.95 is \$40.05. The difference between \$77.81 and \$34.95 is \$42.86.

¹⁹⁴ As discussed more fully in Section II.C below, carriers will be permitted – but not required – to tariff a consumer broadband-only loop service charge.

¹⁹⁵ Conversely, if a carrier's consumer broadband monthly rate is lower than would otherwise be imputed (possible due to forecasting error), then the higher number will be used. For example, if a carrier with 1,000 loops has a consumer broadband rate of \$41, but based on actual data filed for true-up purposes its consumer broadband revenue requirement is higher than \$42 per loop, then the imputed revenue amount is \$504,000, not \$492,000.

requirement and its consumer broadband loop revenue requirement are met even when the budgetary constraint is applied.

3. Operating Expense Limitation¹⁹⁶

95. *Background.* The Commission has long been concerned that companies not receive more support than is necessary to provide service and that carriers subject to rate-of-return regulation have sufficient incentive to be prudent and efficient in their expenditures, and in particular operating expenses. For example, in the 2011 *USF/ICC Transformation Order*, the Commission updated the corporate operations expense limitation then applicable to HCLS and extended it to ICLS.¹⁹⁷ Last October, the Commission published a non-exhaustive list of expenses that may not be recovered through the high-cost program.¹⁹⁸

96. As part of ongoing efforts to develop a package of targeted reforms to the existing rate-of-return mechanisms, the rate-of-return associations proposed that the Commission adopt limits on operating expenses (opex), similar to what the Commission adopted in 2011 for corporate operations expenses.¹⁹⁹ Specifically, these commenters proposed comparing all companies' monthly expenses per location to a regression-model-generated monthly expense per location plus two standard deviations.²⁰⁰ They suggested that maintenance, network support/network operations/general, benefits, and rent expenses would be included in the regression, while corporate operations, depreciation, return on investment, and taxes would be excluded.²⁰¹ They calculated the standard deviations separately for two density size groups, using 1.5 locations per square mile as the threshold.²⁰²

97. The relationship between operating expenses per location and the variables initially proposed by the rate-of-return representatives for the regression (e.g. number of locations in the study area and density) was not linear, creating a statistical problem. To address this issue, following discussion with Commission staff, industry representatives submitted calculations showing the use of a double log regression using the same variables as originally proposed.²⁰³

¹⁹⁶ We defer implementation of this rule change for Alaska carriers pending Commission consideration of the unified plan for incentive regulation submitted by the Alaska Telephone Association on behalf of Alaska rate-of-return carriers and mobile wireless providers.

¹⁹⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17747-48, paras. 227-233.

¹⁹⁸ See *All Universal Service High-Cost Support Recipients are Reminded that Support Must be Used for its Intended Purpose*, WC Docket Nos. 10-90, 14-58, Public Notice, FCC 15-133 at 1 (2015) (*High Cost Oct. 19, 2015 Public Notice*).

¹⁹⁹ Letter from Gerard J. Duffy, Regulatory Counsel, WTA – Advocates for Rural Broadband, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed May 29, 2015) (filed summarizing ex parte with WTA, ITTA, NTCA, USTelecom, NECA, and individual companies) (RoR Representatives May 29, 2015 *Ex Parte* Letter). See also Letter from B. Lynn Follansbee, Vice-President – Law & Policy, USTelecom, to Marlene H. Dortch, WC Docket No. 10-90, Att. at 3 (filed Feb. 3, 2016) (proposing reasonable limits on operating expenses as module of reform); (Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 29, 2016) (reporting discussion of potential operating expense limits); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al. at 3 (filed Nov. 2, 2015) (noting that reasonable limits on operating expenses would in part achieve all of the principles previously articulated by the Commission for reform).

²⁰⁰ RoR Representatives May 29, 2015 *Ex Parte* Letter, Att. A at 1.

²⁰¹ *Id.*

²⁰² *Id.* at 2.

²⁰³ NECA, FCC Requested Scenarios for Opex Limitations, WC Docket No. 10-90 (filed Sept. 11, 2015).

98. *Discussion.* We adopt the regression methodology submitted by industry representatives with a few modifications to conform the limits better to the nature of the data. The Commission finds that a mechanism to limit operating costs eligible for support under rate-of-return mechanisms, both HCLS and CAF BLS, will encourage efficient spending by rate-of-return carriers and will increase the amount of universal service support available for investment in broadband-capable facilities. These opex limits will apply to cost recovery under HCLS and CAF BLS and will be applied proportionately to the accounts used to determine a carrier's eligible operating expense for HCLS and CAF BLS.²⁰⁴ For example, if the regression methodology determines that a carrier's eligible operating expense should be reduced by 10 percent, then each account used to determine that carrier's eligible operating expense shall be reduced by 10 percent.

99. Consistent with the general approach submitted by the industry associations, operating expense costs will be limited by comparing each study area's opex cost per location to the regression model-generated opex per location plus 1.5 standard deviations.²⁰⁵ The regression formula to be used is as follows:²⁰⁶

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3,^{207}$$

Y is the natural log of opex cost per housing unit,

α is the coefficient on the constant (i.e. 1) in the regression,

X_1 is the natural log of the number of housing units in the study area, with a regression coefficient β_1 ,

X_2 is the natural log of density (number of housing units per square mile), with a regression coefficient β_2 , and

X_3 is the square of the natural log of density, with a regression coefficient β_3 .

100. We do not agree with commenters who argue that we should only limit operating expenses for carriers with costs above the two standard deviations.²⁰⁸ Indeed, we note that using two standard deviations would subject only an estimated 17 study areas to an opex limit. We conclude that using 1.5 standard deviations – which we estimate, based on last year's data, would have impacted roughly 50 carriers – more appropriately advances the Commission's goal of providing better incentives

²⁰⁴ We note that a small number of carriers have not provided this information in the past. Carriers that do not provide study area level cost studies to NECA will have to provide USAC with data from the following four accounts: 1) Account 6310: Information origination/termination expenses; 2) Account 6510: Other property plant and equipment expenses; 3) Account 6610: Customer operations expense: Marketing; and 4) Account 6620: Customer operations expense: Services.

²⁰⁵ For purposes of this regression, we define the number of locations in the study area as the number of housing units per the most recently available U.S. Census data in each census block in that study area. U.S. Census data is publicly available and was used in the 100% overlap determination. *Wireline Competition Bureau Publishes Preliminary Determination of Rate-of-Return Study Areas 100 Percent Overlapped by Unsubsidized Competitors*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 8179, 8182, para. 8 (WCB 2015). If a census block is partially within a study area, the number of housing units in that census block will be allocated based upon the percentage area of the census block within the study area.

²⁰⁶ Costs that are limited pursuant to section 54.305 should be excluded from the regression analysis and from the study area opex limit calculation.

²⁰⁷ β_x is the regression coefficient for each of the regression variables.

²⁰⁸ See RoR Representatives May 29, 2015 *Ex Parte* Letter.

for carriers to invest prudently and operate more efficiently. Because any support reductions associated with this limit will then be available to other rate-of-return carriers, our budget for high-cost support should enable more broadband deployment than if we continued funding excessive operating expenses for certain companies at current levels.

101. We decline to set different limits based on the separate density categories initially proposed by the industry because density is already taken into account as a variable in the regression analysis. We see no legal or economic justification for modifying the allowable opex expense a second time. Using density again in this fashion has the effect of arbitrarily raising the allowable opex expense limit for some rural carriers at the direct expense of the other carriers serving high-cost areas that are nearly as sparsely populated. Moreover, even if we were inclined to do so, the proponents of this approach have failed to explain in the record why it would be appropriate to draw the line at 1.5 locations per square mile, as opposed to 2 locations per square mile, 4 locations per square mile, or some other figure. Therefore, we adopt a uniform standard deviation formula for purposes of setting a limit based on the regression results.

102. In addition, unlike the industry's original proposal, we include corporate expenses (calculated according to the current limitation) within the regression. These expenses are a significant portion of carrier operating expenses, and we conclude that they should be subject to limitation as well. Indeed, corporate expenses alone account for approximately 15 percent of the total costs assigned to the loop for rate-of-return cost companies.²⁰⁹ Moreover, we are concerned that leaving corporate expenses outside of this overall limitation will provide an opportunity for inappropriate cost shifting from an account where they are above the limit to an account where they are below the limit.

103. NTCA has argued that "reasonable transitions" are necessary when implementing limitations on support.²¹⁰ We conclude that a transition is appropriate to allow carriers time to adjust their operating expenditures. Therefore, we conclude that for the first year in which the opex cap is implemented, the eligible operating expense of those carriers subject to the cap will be reduced by only one-half of the percentage amount determined by the regression methodology. For example, if the regression methodology determines that a carrier's eligible operating expense should be reduced by 10 percent for the first year in which the opex cap is implemented, then each account used to determine that carrier's eligible operating expense shall be reduced by only 5 percent. However, in all subsequent years, the carrier's eligible operating expense shall be reduced by the full percentage amount determined by the regression methodology.²¹¹

104. Within 30 days of the effective date of this Report and Order, we direct NECA to submit to USAC a schedule of companies subject to limits under the adopted formula.²¹² We also direct NECA to provide USAC with the dollar amount of reductions in HCLS and CAF-BLS to which each carrier subject to limits under the adopted formula will be subject. USAC shall validate all calculations received from NECA before making disbursements subject to any such support reductions.

²⁰⁹ See Universal Service Fund 2014 Submission of 2013 Study Results by the National Exchange Carrier Association, Inc., http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/usf14af.zip; see also RoR Representatives May 29, 2015 *Ex Parte* Letter, Attach. A at 1.

²¹⁰ NTCA Dec. 15, 2015 *Ex Parte* Letter.

²¹¹ For example, if a carrier's operating expenses exceed the cap by \$1,000 in the first year of implementation of the cap, that carrier's support would be reduced by \$500 in that year. In the second year of implementation, if the carrier's operating expenses still exceeded the cap by \$1,000, the carrier's support would be reduced by \$1,000.

²¹² We direct NECA to exclude data for Alaska carriers when making these calculations.

4. Capital Investment Allowances²¹³

105. *Background.* Because federal universal service support is finite, it is the Commission's goal to use that support as efficiently as possible to preserve existing service and to advance deployment of broadband services in all areas of the United States. We note that some areas served by rate-of-return carriers have substantial deployment of broadband by both incumbent LECs and competitors, while others have little to none. For example, according to December 2014 Form 477 data, an estimated 14 percent of the locations in census blocks served by rate-of-return carriers lack access even to 4/1 Mbps terrestrial fixed Internet access service, while 22 percent of the locations in census blocks served by rate-of-return carriers lack access to 10/1 Mbps terrestrial fixed broadband service.²¹⁴ We also note that disparate deployment exists within individual states,²¹⁵ as well as across the country, with carriers from New York to California reporting *no* 10/1 Mbps broadband deployment to any of their census blocks.²¹⁶ The Commission is eager to target support more effectively so that those areas with less broadband are able to catch up to those areas that already have substantial deployment.

106. In September 2013, NTCA proposed that the Commission adopt a Capital Budget Mechanism that “would provide, in a streamlined way, transparent carrier-specific investment budgets (for purpose of prospective investment support eligibility) that reflect local conditions and are tied to that carrier's individualized need to replace aging plant.”²¹⁷ Essentially, capex allowances would determine a carrier's universal service-supportable loop plant investment based upon that individual carrier's inflation-adjusted depreciated loop plant, subject to Commission adjustment if the carrier is deemed to have inefficient levels of investment, and spread over time in coordination with the replacement of old plant.²¹⁸ The Commission sought comment on NTCA's proposal in the *April 2014 Connect America FNPRM*.²¹⁹ NTCA continued to refine its proposal since then.²²⁰

107. In April 2015, NTCA, WTA, and NECA submitted a more detailed explanation of the original capex allowance proposal.²²¹ The industry proposed to establish a Total Allowed Loop Plant Investment (TALPI)²²² based on each carrier's inflation-adjusted total loop investment and accumulated depreciation.²²³ Using each carrier's TALPI, an Annual Allowable Loop Plant Investment (AALPI)²²⁴ is

²¹³ We defer implementation of this rule change for Alaska carriers pending Commission consideration of the unified plan for incentive regulation submitted by the Alaska Telephone Association on behalf of Alaska rate-of-return carriers and mobile wireless providers.

²¹⁴ See Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477> (last visited Mar. 29, 2016).

²¹⁵ See *id.*

²¹⁶ See *id.*

²¹⁷ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed Sept. 12, 2013). For purposes of this Order, we refer to the Capital Budget Mechanism as a “capex limit.”

²¹⁸ *Id.*

²¹⁹ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7139, para. 275.

²²⁰ See, e.g., Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed May 1, 2015); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 31, 2014).

²²¹ NTCA/WTA/NECA April 21, 2015 *Ex Parte* Letter.

²²² The proposal used the term “Total Allowable Loop Expense,” which we change here to “Annual Allowable Loop Plant Investment,” a more precise description of the included expenditures.

²²³ *Id.*, Proposed Rules Attach at 4-6 (“Part Two: Rules Establishing Support Limitations,” Section C: Capital Expenditure Limitations).

calculated using an AALPI function that annualizes the amount of TALPI for each carrier.²²⁵ The AALPI is designed such that in any given year a carrier's AALPI will never be less than 5 percent, nor greater than 20 percent, of its inflation-adjusted total loop investment, prior to any of the adjustments described below.²²⁶ For example, a carrier with all new loop plant that has no depreciation would have an AALPI that is equal to 5 percent of its inflation-adjusted investment in that plant while a carrier with older, fully depreciated, loop plant will have an AALPI equal to 20 percent of its inflation-adjusted investment in that plant.

108. The associations also proposed a number of other terms for the capex allowances. First, there would be a Minimum Annual Loop Expenditure such that if a carrier has an AALPI that is less than \$4 million in any given year, the carrier shall be allowed to increase its AALPI for that year to the lesser of \$4 million or its Total Allowed Plant Investment.²²⁷ Second, there would be a Carry Forward Adjustment such that Loop Plant Capital Investment in a year in excess of the AALPI may be carried forward to future years and included in AALPI for such years, but may not cause the AALPI to exceed the Total Allowed Loop Plant Investment. However, in the event a carrier's Loop Plant Capital Investment is below the Annual Allowed Loop Expenditure in a given year, there will be no carry forward to future years of unused Annual Allowed Loop Plant Investment.²²⁸ Third, the associations proposed that a carrier could adjust its AALPI for loop plant capital expenditures associated with any of the following: (1) areas where there are currently no existing wireline local loop facilities in the study area; (2) areas where grant funds are used for Loop Plant Investment; (3) areas covered by a pre-existing loan that was in place before a certain date; and (4) projects where the carrier had awarded a contract to a vendor for construction after a certain date. A carrier would add the applicable adjustment to the amount of AALPI for the year in which the additions to plant are booked to its associated capital accounts.²²⁹ Finally, the proposal included a construction limitation adjustment to ensure that carriers could not obtain support for excessive per-location construction investment. The associations defined Maximum Average Per-Location Construction to be equal \$10,000 times the annual GDP-GCI times (Loop Cap Adjustment Factor times Construction Limit Factor) where the Loop Cap Adjustment Factor currently equals \$3,000 divided by the unadjusted per-line support amount and the Construction Limit Factor equals the study area total loop investment per location divided by the overall total investment per location for all rate-of-return study areas.²³⁰

109. In August 2015, NTCA, USTelecom, ITTA, WTA, the Eastern Rural Telecom Association, and NECA submitted a revised capex allowance proposal designed "to ensure that a greater proportion of USF resources are directed not only toward areas in which network plan is depreciated, but also toward locations where consumers are lacking access to the then-current speed thresholds established by the Commission for universal service."²³¹ This proposal would adjust a carrier's AALPI, i.e. the carrier's annual budget for universal service-eligible investment, based on the company's broadband deployment. This would involve three steps:

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²²⁴ The proposal used the term "Annual Allowable Loop Expense," which we change here to "Annual Allowable Loop Plant Investment," a more precise description of the included expenditures.

²²⁵ NTCA/WTA/NECA April 21, 2015 *Ex Parte* Letter, Proposed Rules Attach at 4-6.

²²⁶ *Id.*

²²⁷ *Id.*

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ *Id.*

²³¹ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC WC Docket No. 10-90 (filed Aug. 31, 2015) (NTCA August 31, 2015 *Ex Parte* Letter).

- (a) Determine a target broadband deployment level of all rate-of-return companies based on the national average broadband availability (target availability) for all rate-of-return carriers using Form 477 data;
- (b) Calculate the difference between each companies broadband availability and the target availability; and
- (c) Increase or reduce a carrier's AALPI based on this difference such that (i) for every percentage point that a carrier's broadband availability exceeds the target availability, the carrier's AALPI would be reduced by one half of a percentage point and (ii) for every percentage point that a carrier's broadband availability is below the target availability, the carrier's AALPI would be increased by one half of a percentage point.²³²

For example, if a carrier had 48 percent broadband availability (defined at then-current broadband standards) and the national target broadband availability is 68 percent, that carrier's AALPI would be *increased* by 10 percent (68 percent minus 48 percent, divided by 2). Thus, if that company had a \$1 million AALPI, its "annual budget" for eligible investment would be increased to \$1.1 million.

110. *Discussion.* We adopt the revised capex allowance proposed by the rate-of-return industry associations with minor modifications.²³³ We believe that this mechanism will help target support to those areas with less broadband deployment so that carriers serving those areas have the opportunity to catch up to the average level of broadband deployment in areas served by rate-of-return carriers. We direct the Bureau to announce the updated weighted average broadband deployment for all rate-of-return carriers, and the relevant deployment figure for each individual carrier, based on the more recent June 2015 FCC Form 477 data for the initial implementation of this rule, and to publish similar figures reflecting current FCC Form 477 data on an annual basis.²³⁴ Although it is the Commission's goal to ensure broadband deployment throughout all areas, finite universal service resources must be used where they are most needed. Therefore, we find that on a going forward basis, directing increased support to those areas lagging behind the national average in broadband availability will ensure a more equitable distribution of deployment, thereby achieving one of the goals for reform articulated by the Commission in the *April 2014 Connect America FNPRM*.²³⁵ We do, however, make several adjustments to the industry's proposal.²³⁶

²³² *Id.* at 2-3.

²³³ For clarity, we specify that we adopt the proposal referred to by the rate-of-return industry as the revised Capital Budget Mechanism. *See* NTCA August 31, 2015 *Ex Parte* Letter.

²³⁴ *See* Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477> (last visited Mar. 29, 2016). The weighted average based on the December 2014 FCC Form 477 data was 68%.

²³⁵ Several commenters argue that a streamlined waiver process is needed to ensure that carriers can seek a waiver if it needs to make investments greater than those allowed by the capital budget limitation to provide broadband to the carrier's customers. Letter from Larry D. Thompson, Vantage Point Solutions, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, et al. at 3 (filed Jan. 28, 2016); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Feb. 18, 2016) (on behalf of NTCA and Larry Thompson, Vantage Point Solutions) (NTCA/Vantage Point Feb. 18, 2016 *Ex Parte* Letter). Any carrier can file a waiver under the Commission's existing rules. To enable expeditious treatment of any waiver request, a carrier should provide an explanation of why it is in the public interest for that carrier to be allowed to recover costs above the amounts estimated for purposes of establishing that carrier's deployment obligation, recognizing that the purpose of the capital allowance is to provide those carriers, with deployment less than the average level, the opportunity to catch up to those that have already deployed broadband at or above the average level. Specific factual evidence will assist the Commission in evaluating any such requests. Those carriers who cannot meet their deployment obligation even by expending the full amount of their TALPI allowance should submit information regarding the costs expected to be incurred to meet the deployment obligation certified by an engineer licensed in the state(s) in which the construction will take place. *See* NTCA/Vantage Point Feb. 18, 2016

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111. First, we use the TALPI as the basis for calculating loop plant investment limitations for both HCLS and CAF-BLS, not just for HCLS.²³⁷ To ensure the most efficient use of limited universal service resources, the capital budget limitation must apply to HCLS, which supports the intrastate portion of the exchange loop, and CAF-BLS, which supports the interstate portion. Second, we modify the investment categories proposed by the associations to determine a carrier's TALPI so that they correspond to those used to determine a carrier's HCLS and CAF BLS.²³⁸ Amounts in excess of a carrier's AALPI will be removed from the relevant categories or accounts either on a direct basis when the amounts of the new loop plant investment can be directly assigned to a category or account, or on a pro-rata basis according to each category or account's proportion to the total amount in each of the above categories and accounts when the new loop plant cannot be directly assigned.

112. Third, we refine the AALPI adjustment for areas covered by a pre-existing loan. We conclude that the AALPI should only be adjusted for areas covered by a pre-existing loan for which a previously planned loan disbursement has been made and that loan disbursement was used to increase the annual loop expenditure for the year, or years, in which the AALPI adjustment is taken. We make this modification because an outstanding loan does not *per se* warrant an increase in a carrier's AALPI unless a previously planned disbursement of that loan leads to an increase in the carrier's loop plant investment.

113. Fourth, rather than adjusting the AALPI by only one half of a percentage point for every percentage point that a carrier's deployment differs from the target availability, we adjust the AALPI by one percentage point. We find that an adjustment of only one half of a percentage point will not have a sufficient impact to moderate expenditures by companies that are above average, and also will not provide a sufficient opportunity to catch up to those carriers that must increase their deployment. An increase of one percentage point will allow those carriers that must catch up to the target availability more funds with which to do so.

114. Within 30 days of the release of a Public Notice announcing that the Commission has obtained the appropriate Paperwork Reduction Act approval, and for each subsequent quarterly or annual data reporting period, we direct NECA to submit to USAC the following information for each study area:

- Total Allowed Loop Plant Infrastructure
- AALPI for the Current Reporting Period (Current AALPI)
- Current AALPI Adjustment for Percent of Broadband Deployment
- Current AALPI Adjustment for Loan Disbursements
- Current AALPI Adjustment for Broadband Deployment Obligations

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Ex Parte Letter at 2 (stating that a carrier seeking a waiver to exceed capital budget allowances should “permitted to submit engineering documents certified and stamped by a professional engineer showing what those actual costs are”).

²³⁶ Vantage Point Solutions argues that an inflation factor with a higher labor component would be more appropriate than the GDP-CPI because Vantage Point's experience shows that approximately 70% of construction costs in rural LEC areas are associated with labor. Letter from Larry D. Thompson, Vantage Point Solutions, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, et al. at 2 (filed Jan. 28, 2016). However, the Commission has used the GDP-CPI, which includes both capital and labor costs, in its HCLS calculations since 2001, and Vantage Point presents no compelling reason as to why an alternative inflation measure should be used here. To the extent any individual carrier has unique circumstances that might warrant an adjustment in its capex allowance, it is free to seek a waiver pursuant to section 1.3 of the Commission's rules.

²³⁷ NTCA/WT/NECA April 21, 2015 *Ex Parte* Letter.

²³⁸ We note that a small number of carriers have not provided this information in the past. Carriers that do not provide study area level cost studies to NECA will have to provide USAC with data from the relevant categories and accounts.

- AALPI Amounts Carried Forward from Previous Reporting Periods
- Total AALPI (Equals Current AALPI plus All Adjustments plus Carry Forward)
- Dollar amount of the reduction, if any, in capital expense eligible for HCLS and/or CAF-BLS due to the Total AALPI for the relevant reporting period
- Dollar amount of the reductions, if any, in HCLS and/or CAF BLS due to the carrier's capital expense reduction caused by the Total AALPI for the relevant reporting period

115. USAC shall validate all calculations received from NECA before making disbursements subject to any support reductions due to the Capital Investment Allowance.

5. Eliminating Subsidies in Areas Served by an Qualifying Competitor

116. In this section, we take further steps to target high-cost support efficiently to those areas that will not be served by private sector investment alone. First, we prohibit rate-of-return carriers from receiving CAF BLS in areas that are served by a qualifying unsubsidized competitor. Second, we adopt a challenge process to determine which areas are served by unsubsidized competitors building on proposals submitted in the record.²³⁹ Third, as proposed by several commenters,²⁴⁰ we adopt several options to disaggregate support in areas determined to be served by qualifying competitors: carriers will be free to elect one of several mechanisms to disaggregate their support. Fourth, we adopt a phased reduction in disaggregated support for competitive areas, as suggested by USTelecom and NTCA. The net result of these changes will be to more effectively target CAF BLS to areas where support is needed to ensure consumers are served with voice and broadband services.

117. *Background.* The Commission has long been committed to eliminating inefficiencies and instances in which “universal service provides more support than necessary to achieve our goals.”²⁴¹ In the 2011 *USF/ICC Transformation Order*, the Commission adopted a rule to eliminate high-cost universal service support in any rate-of-return carrier study area where an unsubsidized competitor or a combination of unsubsidized competitors offers voice and broadband services that meet the Commission's service obligations throughout the study area,²⁴² commonly referred to as the 100 percent overlap rule. It delegated to the Bureau the task of implementing the rule. The Commission also sought comment in the 2011 *USF/ICC Transformation FNPRM* on adopting a rule to eliminate support for lines in areas subject to competitive overlap and several methods for adjusting support in areas with less than

²³⁹ USTelecom/NTCA Feb. 5, 2016 *Ex Parte* Letter; Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, the Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed July 16, 2016) (NTCA July 16, 2016 *Ex Parte* Letter); Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, the Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Feb. 5, 2016) (NTCA Feb. 5, 2016 *Ex Parte* Letter).

²⁴⁰ USTelecom/NTCA Feb. 5, 2016 *Ex Parte* Letter; Letter from Trey Judy, Director – Regulatory, Hargray, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at 4 (filed Feb. 5, 2016) (Hargray *Ex Parte* Letter).

²⁴¹ *USF/ICC Transformation Order/FNPRM*, 26 FCC Rcd at 17766-67, para. 280.

²⁴² See *id.* at 17766-68, paras. 280-84. The Commission defined an unsubsidized competitor as “a facilities-based provider of residential fixed voice and broadband service that does not receive high-cost support.” *Id.* at 17701-02, paras. 103-104. See also 47 CFR §54.5.

100 percent competitive overlap.²⁴³ We subsequently codified the 100 percent overlap rule in April 2014.²⁴⁴

118. In the *April 2014 Connect America Order*, the Commission clarified that rate-of-return carriers have no obligation to extend broadband-capable infrastructure in any census block that is served by an unsubsidized competitor meeting the Commission's current standards. The Commission stated, "[w]e cannot and will not condone new investment subsidized by universal service funds to occur in areas that are already served by marketplace forces, and thus interpret our broadband public interest obligation consistent with that policy."²⁴⁵ In the accompanying *April 2014 Connect America FNPRM*, the Commission proposed to adopt a rule that no new investment after a date certain be recovered through universal service support mechanisms when such investment occurs in areas already served by a qualifying competitor.²⁴⁶

119. In July 2015, the Bureau adopted a methodology for determining 100 percent overlapped areas, released a preliminary list of study areas subject to 100 percent overlap, and sought comment on that preliminary determination.²⁴⁷ Last December, the Bureau released its final determination, concluding that only one study area out of the fifteen study areas on the preliminary list was completely overlapped.²⁴⁸

120. *Discussion.* In order to meet our objective of utilizing universal service funds to extend broadband to high-cost and rural areas where the marketplace alone does not currently provide a minimum level of broadband connectivity,²⁴⁹ the Commission has emphasized its desire to "distribute universal service funds as efficiently and effectively as possible."²⁵⁰ Support should be used to further the

²⁴³ See *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18058-59, paras. 1073-1076; see also *id.* at 18050, para. 1038. In particular, the Commission sought comment on adopting a rebuttable presumption that all costs are divided on a pro rata basis among access lines and allocated to the census block in which the lines are located, with a resulting reduction in support for the specific number of lines within such census blocks.

²⁴⁴ *April 2014 Connect America Order*, 29 FCC Rcd at 7068, para. 54; see also 47 CFR § 54.319. When codifying the rule, the Commission failed to clarify that the elimination of high-cost support for those carriers that are 100% overlapped does not include Connect American Fund intercarrier compensation (CAF-ICC). When it originally adopted the rule in 2011, the Commission concluded that support would be frozen at the amounts received in the prior calendar year – when CAF-ICC support did not exist – and then phased down. Thus, carriers that are 100% overlapped will not see any reductions in their CAF-ICC support.

²⁴⁵ *April 2014 Connect America Order*, 29 FCC Rcd at 7073, para. 68.

²⁴⁶ See *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7135-36, paras. 263-66. The Commission has already prohibited price cap carriers from investing in areas served by an unsubsidized competitor. *USF/ICC Transformation Order*, 26 FCC Rcd at 17722, para. 149. To ensure compliance with the requirement that price cap carriers use support in areas without an unsubsidized competitor, the carrier must "be prepared to provide asset records demonstrating the existence of facilities, such as a DSLAM and/or middle mile plant that service locations in census blocks where there is no unsubsidized competitor." See *id.* at 17722, para. 149, n. 238. In response to the *April 2014 Connect America FNPRM*, commenters noted the inability of price cap carriers to invest in areas served by an unsubsidized competitor and supported adoption of a similar rule for rate-of-return carriers. See NCTA Aug. 2014 Comments at 3-5.

²⁴⁷ See *Wireline Competition Bureau Publishes Preliminary Determination of Rate-of-Return Study Areas 100 Percent Overlapped by Unsubsidized Competitors*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 8179 (WCB 2015) (July 2015 Overlap Methodology PN).

²⁴⁸ *In the Matter of Connect America Fund*, WC Docket No. 10-90, Order, DA 15-1419 (WCB 2015) (100 Percent Overlap Order).

²⁴⁹ See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 15644, 15649, para. 15 (rel. Dec. 18, 2014) (*December 2014 Connect America Order*).

²⁵⁰ *USF/ICC Transformation Order*, 26 FCC Rcd at 17673, para. 20.

goal of universal voice and broadband, and not to subsidize competition in areas where an unsubsidized competitor is providing service.²⁵¹ Universal service is ultimately paid for by consumers and businesses across the country. Providing support to a rate-of-return carrier to compete against an unsubsidized provider distorts the marketplace, is not necessary to advance the principles in section 254(b), and is not the best use of our finite resources.²⁵²

121. To ensure that high-cost universal service support is used efficiently, consistent with the intent of providing universal service where it otherwise would be lacking, we now adopt a rule to eliminate CAF BLS in competitive areas. Building on proposals submitted in the record by NTCA and USTelecom,²⁵³ and taking into account our experience implementing similar requirements in price cap areas and the 100 percent overlap rule in rate-of-return areas,²⁵⁴ a census block will be deemed to be “served by a qualifying competitor” for this purpose if the competitor holds itself out to the public as offering “qualifying voice and broadband service” to at least 85 percent of the residential locations in a given census block.²⁵⁵ For purposes of meeting the requirement to “offer” service, the competitor must be willing and able to provide qualifying voice and broadband service to a requesting customer within ten business days.

122. The first step in implementing such a rule is to conduct a process to determine which census blocks are competitively served. We now adopt a challenge process building on lessons learned from both the challenge process utilized to finalize the offer of Phase II model-based support to price cap carriers and the process used to implement the 100 percent overlap rule for rate-of-return carriers.²⁵⁶ Under this process, the Bureau will publish a Public Notice with a link to a preliminary list of competitors serving specific census blocks according to FCC Form 477 data. As suggested by NTCA and

²⁵¹ NTCA and USTelecom recognize that targeting support to areas where no other provider is offering qualifying voice and broadband service is “essential to a broadband reform effort.” USTelecom/NTCA Feb. 5, 2016 *Ex Parte* Letter.

²⁵² See *Vermont PSB v. FCC*, 661 F.3d 54, 65 (D.C. Cir. 2011) (recognizing the Commission’s “responsibility to be a prudent guardian of the public’s resources.”).

²⁵³ USTelecom/NTCA Feb. 5, 2016 *Ex Parte* Letter; Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, the Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed July 16, 2016); NTCA Feb. 5, 2016 *Ex Parte* Letter). See also Letter from Gerald J. Duffy, Regulatory Counsel, WTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Feb. 4, 2016) (WTA Feb. 4, 2016 *Ex Parte* Letter).

²⁵⁴ See, e.g., ITTA Nov. 19 ex parte (emphasizing importance of verified evidence that unsubsidized competitor is present in the census block and noting that the mechanics of the challenge process utilized for 100% competitive overlap are sound).

²⁵⁵ In the context of other proceedings, the Commission will continue to consider issues regarding the consistent regulatory treatment of rate-of-return carriers and their competitors.

²⁵⁶ In the *April 2014 Connect America FNPRM*, the Commission proposed creating a safe harbor that would allow rate-of-return carriers to include new investment in cost studies used to determine HCLS or ICLS. Specifically, a rate-of-return carrier could publicly announce the intent to deploy to a particular census block. If no competitor responded within a specified period of time that it is served the area in question, the rate-of-return carrier could then presume that no other provider was serving the area, and new investment in such areas would be eligible for cost recovery, consistent with any applicable rules. See *April 2014 Connect America Order and/or FNPRM*, 29 FCC Rcd at 7136, paras. 265. Commenters argued that the safe harbor proposal was unreasonable because rate-of-return carriers do not maintain asset records to the census block level, and a requirement to do so would be unduly burdensome. See, e.g., ITTA Aug. 2014 Comments at 7-8. Commenters also argued that a requirement to publicly post build-out plans in advance of deployment would put rate-of-return carriers at a competitive disadvantage. See ITTA Aug. 2014 Comments at 7-8; TCA Aug. 2014 Comments at 6. Given these expressed concerns, commenters further developed the record on alternative on other ways to implement a competitive overlap rule. See, e.g., NTCA Feb. 5, 2016 *Ex Parte* Letter.

USTelecom,²⁵⁷ in order for a challenge for a particular census block to go forward, those competitors will be required to certify that they are offering service to at least 85 percent of the locations in the census block, and must provide evidence sufficient to show the specific geographic area in which they are offering service.²⁵⁸ If they fail to submit such information in response to the Bureau's Public Notice, the block will not be deemed competitively served.²⁵⁹ To the extent the competitor provides the required filing in response to the Bureau's Public Notice, incumbents and any other interested parties such as state public utility commissions and Tribal governments will have the opportunity to contest those assertions. The ultimate burden of persuasion will rest on the competitor to establish that it offers service to at least 85 percent of the locations in the census block, based on all the evidence in the record. The challenge process will be conducted by the Bureau as set forth more fully below.

123. The Bureau will rely on Form 477 broadband deployment data to make the preliminary determination of which census blocks are served by providers offering broadband service.²⁶⁰ The Form 477 data collection is mandatory, and Form 477 filers must certify to the accuracy of their data.²⁶¹ We direct the Bureau to utilize the most recent publicly available data at the time it releases the initial Public Notice.

124. To be considered an unsubsidized competitor in a given census block, a fixed broadband provider must offer service in accordance with the Commission's current service obligations on speed, latency, and usage allowances.²⁶² In December 2014, the Commission adopted a new minimum speed standard for carriers receiving high-cost support: they must offer actual speeds of at least 10/1 Mbps.²⁶³ Therefore, we direct the Bureau to use 10/1 Mbps as the threshold for determining competitors when developing the preliminary list for the initial implementation of this rule.

²⁵⁷ USTelecom/NTCA Feb. 5, 2016 *Ex Parte* Letter; NTCA Feb. 5, 2016 *Ex Parte* Letter.

²⁵⁸ Documentary evidence should provide information sufficient to identify the geographic area where service is offered, such as a map of a local franchise area, street addresses or other information that would enable interested parties to determine the specific area allegedly served on a map.

²⁵⁹ One lesson learned from the Phase II challenge process was the difficulty of processing a large number of excel files containing information for nearly 180,000 individual census blocks. We direct the Bureau to work with USAC to develop an online portal for the submission of the requisite information to the Administrator for initial processing in the rate-of-return competitive overlap process. The Administrator will prepare for the Bureau a list of the census blocks where the competitor has submitted the requisite certification with evidence. We note that the process will not be implemented until approval is obtained for the information collection under the Paperwork Reduction Act.

²⁶⁰ FCC Form 477 requires carriers to report deployment data on a census-block basis. Census blocks are the smallest geography for which the Census Bureau collects population data, and the United States comprises approximately 11 million census blocks. See U.S. Census Bureau, 2010 Census Summary File 1, Technical Documentation, at A-10 and A-12 (Sept. 2012), available at <http://www.census.gov/prod/cen2010/doc/sf1.pdf>; U.S. Census Bureau, 2010 Census Summary File 1 Urban/Rural Update (Sept. 2012). According to 2010 Census documentation, census blocks "are statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by nonvisible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads." There are over 700,000 rate-of-return census blocks, with entities not affiliated with the incumbent that offer voice service in a state reporting fixed terrestrial broadband with speeds of at least 10/1 Mbps in roughly 147,000 of those blocks in the December 2014 FCC Form 477 data collection.

²⁶¹ *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Report and Order, 28 FCC Rcd 9887, 9897-98, paras. 23-24 (2013) (*Form 477 Order*). Parties face criminal penalties for knowingly and willingly making materially false, fictitious or fraudulent statements or representations in official matters before the Commission. 18 U.S.C. § 1001.

²⁶² *USF/ICC Transformation Order*, 26 FCC Rcd at 17767-68, para. 283. See *supra* paras. 27-28 (providing additional information on the latency and usage allowance obligations).

²⁶³ *December 2014 Connect America Fund Order*, 29 FCC Rcd at 15649, para. 15.

125. We are not persuaded by NTCA's proposal that the Commission utilize the current section 706 speed benchmark, at least 25 Mbps downstream and 3 Mbps upstream (25/3 Mbps), as the basis to identify locations where a competitor is present.²⁶⁴ Although the Commission has determined that 25/3 Mbps reflects "advanced" capabilities, the Commission has explained that "[b]y setting a lower baseline for Connect America funding, we establish a framework to ensure a basic level of service to be available for all Americans, while at the same time working to provide access to advanced services."²⁶⁵ The areas served by rate-of-return carriers encompass "many rural and remote areas of the country."²⁶⁶ Similarly, we are not persuaded by WTA's proposal that a competitor must be offering service with speeds at least as high as the highest speed service offering of the incumbent in order to be deemed a qualifying competitor.²⁶⁷ We find that using a 10/1 Mbps threshold at the present time for identification of competitors is consistent with the Commission's section 254 goal of ensuring that universal service funding is used in the most efficient and effective manner to provide consumers in rural and high-cost areas of the country with voice and broadband service.²⁶⁸

126. The Commission currently does not collect comprehensive, block-level data on broadband latency or monthly usage allowances, as it does for broadband speed.²⁶⁹ However, data collected by the Commission through the Measuring Broadband America program suggest that the latencies associated with most fixed broadband services are low enough to allow for real time applications, including Voice over Internet Protocol.²⁷⁰ In addition, data from the Commission's urban rate survey indicate that many fixed broadband providers offer unlimited data usage or usage allowances well in excess of the 150 GBs per month that we now establish as our baseline requirement for purposes of implementing the competitive overlap rule.²⁷¹ Therefore, we conclude it is reasonable to presume that providers meeting the speed criteria also meet the latency and usage-allowance criteria, for purposes of preparing the preliminary list.

²⁶⁴ See, e.g., Letter from Michael R. Romano, Senior Vice President – Policy, NTCA The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 26, 2015).

²⁶⁵ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as amended by the Broadband Data Improvement Act*, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action To Accelerate Deployment, GN Docket No. 14-126, 30 FCC Rcd 1375, 1403, 1407-08, paras. 45, 55 (2015).

²⁶⁶ See *April 2014 Connect America Order and/or FNPRM*, 29 FCC Rcd at 7134, para. 258.

²⁶⁷ See WTA Feb. 4, 2016 Ex Parte Letter at 3-4.

²⁶⁸ 47 U.S.C. § 254. See USTelecom/NTCA Feb. 6, 2016 Ex Parte Letter, Att. At 1 (stating that for purposes of the competitive screen "[q]ualifying broadband service must provide 10/1 Mbps"). If the Commission modifies its requirements for the high-cost program at a future date, that new definition would be used thereafter.

²⁶⁹ See FCC, A Basic Guide to the Connect America Phase II Challenge Process at 2 (July 31, 2014), http://www.fcc.gov/wcb/tapd/Challenge_Process/ChallengeProcessGuide7-31-14.docx.

²⁷⁰ According to the 2015 Measuring Broadband America Report, average round-trip latency ranged from 14 milliseconds to 52 milliseconds across all terrestrial technologies during peak periods. See FCC Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, *2015 Measuring Broadband America Fixed Broadband Report* at 17, <http://data.fcc.gov/download/measuring-broadband-america/2015/2015-Fixed-Measuring-Broadband-America-Report.pdf>. In 2013, the Bureau required price cap carriers receiving Phase II model-based support to provide broadband service with a round-trip latency of 100 milliseconds or less. *Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 15060, 15068-70, paras. 19-22 (WCB 2013) (*Phase II Service Obligations Order*).

²⁷¹ FCC, Urban Rate Survey Data, *2015 Urban Rate Broadband Survey Results*, <https://www.fcc.gov/encyclopedia/urban-rate-survey-data>.

127. This is similar to the approach taken by the Bureau in the Connect America Fund Phase II challenge process.²⁷² One of the lessons learned from the Phase II challenge process was that no party was able to demonstrate high latency by competitors, and very few providers prevailed in a challenge exclusively focused on a competitor's usage/price. This provides us with confidence that, as a general matter, it is reasonable to assume, for purposes of preparing the preliminary list, that a provider that in fact is in the area providing the requisite speed is also meeting the latency and usage requirements.

128. Under our existing rule, to be considered an unsubsidized competitor, a provider must be a facilities-based provider of residential fixed voice service, as well as fixed broadband.²⁷³ Form 477 provides the best data available on whether broadband providers also offer fixed voice service, but the data are not reported at the census block level. Therefore, to determine whether a broadband provider also offers voice service, for purposes of preparing the preliminary list, the Bureau will assume if a broadband provider reported any fixed voice connections in a state in its Form 477 filing, then it offers voice service throughout its entire broadband service area in that state.²⁷⁴ We note that in order to file Form 477, a VoIP provider must be offering interconnected VoIP, which means that the provider is required to provide E911 and comply with CALEA, among other things.²⁷⁵

129. We will exclude competitive Eligible Telecommunications Carriers (ETCs) receiving universal service support, as well as affiliates of incumbent LECs, from the analysis undertaken to develop the preliminary list. ETCs that receive universal service support will be excluded from the preliminary determination because these providers are not "unsubsidized." We also conclude, for purposes of preparing the preliminary list that an affiliate that an incumbent LEC is using to meet its broadband public interest obligation in a given census block shall not be treated as an unsubsidized competitor.²⁷⁶ If we were to conclude otherwise, a rate-of-return carrier would automatically be precluded from receiving support for new investment in census blocks wherever its affiliate is offering broadband and voice service as a condition of receiving high-cost support. To the extent the Form 477 data indicate that a particular rate-of-return carrier has deployed more than one technology in a given census block, we will presume, for purposes of preparing the preliminary list, that the carrier is utilizing different technologies within a given census block to serve its customers.²⁷⁷

²⁷² See FCC, A Basic Guide to the Connect America Phase II Challenge Process at 2 (July 31, 2014), http://www.fcc.gov/wcb/tapd/Challenge_Process/ChallengeProcessGuide7-31-14.docx.

²⁷³ *USF/ICC Transformation Order*, 26 FCC Rcd at 17767-68, para. 283. See 47 CFR § 54.5.

²⁷⁴ The Bureau used the same approach to identifying voice providers in developing the model adopted for the offer of Phase II support to price cap carriers and also in the Connect America Fund Phase II challenge process. *Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 7211, 7215-16, paras. 9-11 (WCB 2013). During the challenge process, parties are free to present any evidence that refutes this presumption.

²⁷⁵ See, e.g., 47 CFR § 9.5 (E-911); 47 CFR Part 1, subpart Z.

²⁷⁶ In 2013, the Bureau recognized that many rate-of-return ILECs would be meeting their broadband public interest obligations through an affiliated Internet service provider. See *Connect America Fund*, WC Docket No. 10-90, Order, 28 FCC Rcd 7227, 7228-79, para. 6 (WCB 2013) (clarifying that, for purposes of rate-of-return carriers reporting regarding their obligation to provide broadband service to customers upon reasonable request, the relevant "customer" is the end-user customer of the retail broadband Internet access service regardless of whether the customer purchases the service directly from the ETC or from an Internet service provider that purchases the ETC's wholesale broadband transmission service). See Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Oct. 29, 2015) (NTCA Oct. 29, 2015 *Ex Parte Letter*); Letter from Anthony K. Veach, Counsel for Panhandle Telephone Cooperative, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed June 17, 2015); Letter from Dustin Johnson, Vice President of Consulting, Vantage Point, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Dec. 4, 2015).

²⁷⁷ We note that, according to the December 2014 Form 477 deployment data, there are instances where rate-of-return carriers are utilizing technologies other than copper to deploy 10/1 Mbps or faster broadband. For instance, nationwide, cable facilities are the sole means of delivering broadband for roughly 2% of rate-of-return carrier

(continued....)

130. Once the preliminary list is published, the next step in the process will be for identified competitors to confirm that they are in fact offering voice and broadband service within the specific census block where they report broadband deployment on FCC Form 477. Based on the Phase II challenge experience, we have learned that it is extremely difficult for an incumbent provider to prove a negative – that a competitor is not serving an area. Rather, the purported competitor is in a much better position to confirm that it is offering service in a given area.

131. Upon publication of the preliminary list, there will a comment period in which competitors must certify that they offer both voice and broadband meeting the requisite requirements in a particular census block in order for that block potentially to be subject to a competitive overlap determination.²⁷⁸ Specifically, as suggested by several parties,²⁷⁹ they must offer: (1) fixed voice service at rates under the then applicable reasonable comparability benchmark,²⁸⁰ and (2) fixed terrestrial broadband service with actual downstream speed of at least 10 Mbps and actual upload speed of at least 1 Mbps; with latency suitable for real time applications, including Voice over Internet Protocol; with usage capacity that is reasonably comparable to offerings in urban areas; and at rates that are reasonably comparable to those in urban areas.²⁸¹ To the extent the competitor is meeting the voice service obligation through interconnected VoIP, it will already be subject to requirements for E911 and CALEA, as noted above. We also require that the competitor be able to port telephone numbers in that census block,²⁸² as suggested by several commenters.²⁸³ In order to make this certification, a competitor must have hold itself out to the public as offering service to at least 85 percent of the locations in the census block,²⁸⁴ and be willing and able to provide service to a requesting customer within ten business days.²⁸⁵ We are

(Continued from previous page) —————

locations. For 3% of the rate-of-return carrier locations nationwide, carriers are reporting deployment of 10/1 Mbps or faster broadband using both copper and cable facilities. See FCC, *Rate-of-Return Carrier Deployment Percentages by Technology*, <https://transition.fcc.gov/wcb/ACAM%2021%20ROR%20ILEC%20Coverage%20FINAL.XLSX> (last visited Mar. 4, 2016). We will consider in the challenge process, however, any evidence that indicates an affiliate is not used by a rate-of-return carrier to meet its broadband performance obligations.

²⁷⁸ For administrative efficiency, the Bureau, working with USAC, may utilize a format similar to that used in the Phase II challenge process as the means of collecting information from competitors on the preliminary list.

²⁷⁹ See, e.g., NTCA Feb. 6 Ex Parte Letter.

²⁸⁰ We note that the applicable voice benchmark for 2015 was \$47.48. *Wireline Competition Bureau Announces Results of 2015 Urban Rate Survey for Fixed Voice and Broadband Services and Posting of Survey Data and Explanatory Notes*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 3687 (WCB 2015). We expect to announce the 2016 reasonable comparability benchmark for voice services before commencement of this challenge process.

²⁸¹ 47 CFR § 54.319(a). For purposes of the initial implementation of this rule, we will require the competitor to certify that it is providing 100 milliseconds of latency and 150 GBs of monthly usage at a rate at or below the relevant reasonable comparability benchmark. The minimum usage allowance is announced by the Bureau annually and therefore may be adjusted when this competitive overlap determination is repeated at a future date.

²⁸² 47 CFR § 52.23. In order to port numbers, the requesting carrier must be a certificated telecommunications carrier or a licensed commercial mobile radio service provider. See 47 CFR § 52.23(b)(2)(1). In practice, many interconnected VoIP providers port numbers through a numbering partner.

²⁸³ See USTelecom/NTCA Feb. 6 Ex Parte Letter; WTA Feb. 4 Ex Parte Letter at 3.

²⁸⁴ For purposes of this certification, the number of locations shall be based on the most recently available U.S. Census data regarding the number of housing units in a given census block. We note that our existing rule defines an unsubsidized competitor as a provider of fixed *residential* voice and broadband service. 47 CFR § 54.5 (emphasis added).

²⁸⁵ The Bureau used similar criteria in the Phase II challenge process. See *Wireline Competition Bureau Provides Guidance Regarding Phase II Challenge Process*, WC Docket No. 10-90, Public Notice, 29 FCC Rcd 7505, 7507-08, para. 9 (WCB 2014).

mindful of the burden on the competitor but also need to ensure that information is sufficient for the Commission to evaluate any potential challenges. We clarify that a mere officer certification is insufficient to establish the presence of qualifying service. As noted above, competitors will be required to submit additional evidence in support of that certification clearly to establish where they are providing service. Even so, because we are cognizant of the potential burden, we do not require competitors to submit geocoded locations but encourage competitors to submit as much information as possible, including neighborhoods served and, for cable companies, boundaries of their franchising agreement.

132. If the competitor fails to submit such a certification and any evidence, the block will be deemed non-competitive, and there will be no need for the incumbent to respond.²⁸⁶ If, however, the competitor submits the requisite certification that it is offering both qualifying voice and qualifying broadband service in the census block, with supporting information identifying with specificity the geographic areas served, we will then accept submissions from the incumbent or other interested parties seeking to contest the showing made by the competitor. Examples of information that may be persuasive to establish that service is not being offered includes evidence that a provider's online service availability tool shows "no service available" for customers in the geographic area that the carrier certifies it serves or filings from consumers residing in the geographic area that the competitor has certified is served that they were unable to obtain service meeting the specified requirements from the purported competitor within the relevant time frame.²⁸⁷

133. Consistent with the approach taken in the Phase II challenge process, we will not consider any additional evidence or submissions filed by any party after the deadline for reply comments, absent extraordinary circumstances. We thus adopt a procedural requirement that competitive overlap submissions for both purported competitors and incumbents must be complete as filed. After the conclusion of the comment cycle, the Bureau will make a final determination of which census blocks are competitively served, weighing all of the evidence in the record. We delegate authority to the Bureau to take all necessary steps to implement the challenge process we adopt today.

134. We are not persuaded by arguments that it may be premature for the Commission to implement a competitive overlap rule prior to full implementation of the 100 percent overlap rule.²⁸⁸ The Commission has learned a great deal through developing and implementing both the Phase II challenge process for price cap areas and the 100 percent overlap process.²⁸⁹ We are adopting a challenge process that builds on lessons learned from both experiences. We conclude that utilizing the procedural requirements adopted for the Phase II challenge process, coupled with putting the burden of proof on the competitor to establish that it serves a census block, will best meet the Commission's objectives for ensuring that support is not provided in areas where other providers are providing service without subsidies.

135. We are not persuaded that we should require competitors to certify they serve 100 percent of the locations in a given census block in order for that census block to be considered "served."²⁹⁰ Our

²⁸⁶ In the Phase II challenge process in price cap areas, the Bureau required a minimum showing to establish a prima facie case before soliciting replies to challenges. While challenges were filed to nearly 180,000 census blocks, the Bureau concluded that challengers had established a prima facie case warranting a reply in only 95,000 census blocks. See *Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 7211 (WCB 2013) (*Phase II Challenge Process Order*).

²⁸⁷ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Order, 30 FCC Rcd 2718, 2731, para. 41 & n.95 (WCB 2015); See *In the Matter of Connect America Fund*, WC Docket No. 10-90, Order, DA 15-1419 (WCB Dec. 14, 2015).

²⁸⁸ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at 2 (filed Nov. 9, 2015).

²⁸⁹ See 100 Percent Overlap Order.

²⁹⁰ See WTA Feb. 4 *Ex Parte* Letter (arguing that competitor should serve every location in the census block).

experience with the implementation of the 100 percent overlap rule shows that such a standard will rarely, if ever be met, even though there may be a significant degree of competitive overlap. We conclude that adopting an evidentiary showing that the competitor must certify that it serves 85 percent or more – a substantial majority – of residential locations in a census block are served strikes the right balance between the approach used in the Phase II context (where a block was deemed served if the competitor only served as single location) and the 100 percent overlap rule (which required 100 percent coverage for all residential and business locations in all census blocks in the study area) and will serve our overarching policy objectives. Moreover, to the extent the competitor today only serves 85 percent of the requisite number of residential locations in a given census block, it may expand its footprint to serve the entire census block once it no longer is facing a subsidized competitor.²⁹¹

136. We also decline to impose other requirements suggested in the record by WTA, such as requiring a competitor to have an interconnection agreement with the incumbent, be subject to section 251, offer Lifeline, own or lease all of the facilities needed to deliver service, not receive any other forms of federal or state support, including universal service support other than Lifeline, not charge any fees for site visits to determine if service can be provided, even if that fee is credited upon service installation, and comply with state service quality and other regulatory requirements applicable to the incumbent for voice service.²⁹² WTA fails to provide any explanation of the policy rationale for each of these proposals, many of which seem intended to subject the competitor to the same regulatory requirements as the incumbent. In any event, the net result of these proposals would be to ensure that no entity ever could qualify as an unsubsidized competitor. Nor are we persuaded by WTA's argument that only future new investment should be subject to a competitive overlap rule, and that no support should be reduced for existing investments. We note that we only are disaggregating and reducing CAF BLS in areas found to be served by unsubsidized competitors, rather than both HCLS and CAF BLS, which will lessen the impact of this rule on affected carriers.

137. As suggested by NTCA and USTelecom,²⁹³ we will conduct the competitive overlap challenge process outlined above every seven years. This will ensure that we periodically revisit the competitive overlap analysis, but not impose excessive burden on incumbents, potential competitors, or Commission staff. Re-examining the extent of competitive overlap in this time frame will provide stability and consistency for all interested stakeholders.

138. Upon the completion of the competitive overlap determination, we conclude that carriers should be able to select one of several methods to disaggregate support between competitive and non-competitive areas, as suggested by several commenters.²⁹⁴ We note that the Commission took a similar approach when it allowed incumbents to disaggregate ICLS in 2001, allowing carriers to select one of several disaggregation paths subject to general parameters established by the Commission.²⁹⁵ We agree

²⁹¹ By subsidizing the incumbent in areas where competitive pressure exists, the Commission is distorting the market and deterring the competitor from more fully serving the area. By removing the subsidy in a geographic area that an unsubsidized provider is largely serving, we conclude that we are better targeting universal service support to those areas that no other provider is willing to serve.

²⁹² WTA Feb. 4 *Ex Parte* Letter.

²⁹³ USTelecom/NTCA Feb. 5 *Ex Parte* Letter.

²⁹⁴ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA – The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 1, 3 (filed Jan. 11, 2016) (NTCA Jan. 11, 2016 *Ex Parte*); Hargray *Ex Parte* Letter at 4; USTelecom Feb. 5 *Ex Parte* Letter; Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Ex. A (filed Feb. 5, 2016) (NTCA Feb. 5 *Ex Parte* Letter) (submitting three disaggregation proposals).

²⁹⁵ See 47 CFR §54.315 (2011). This rule was initially adopted in 2001 so that incumbents could disaggregate their ICLS for purposes of the availability of identical support for CETCs. The rule was eliminated when the Commission eliminated the identical support rule for CETCs in the *USF/ICC Transformation Order*.

with commenters that we should utilize a disaggregation mechanism that ensures that sufficient support is provided to those areas where the incumbent is the sole provider of voice and broadband, and we recognize that competitive areas are likely to be lower cost and non-competitive areas are likely to be relatively higher cost.²⁹⁶ We therefore adopt a rule to permit carriers, on their own election, to utilize one of the following methods suggested by commenters to disaggregate their CAF BLS between competitive and non-competitive areas. Providing carriers options will enable each carrier the flexibility to determine which approach best reflects the unique characteristics of their service territory. First, carriers may choose to disaggregate their CAF BLS based on the relative density of competitive and non-competitive areas.²⁹⁷ Second, carriers may choose to disaggregate their CAF BLS based on the ratio of competitive to non-competitive square miles in a study area, as proposed by Hargray.²⁹⁸ Third, carriers may choose to disaggregate their CAF BLS based on the ratio of A-CAM calculated for competitive areas compared to A-CAM support for the study area.²⁹⁹ We outline each of these disaggregation mechanisms below.³⁰⁰

139. Consistent with the approach previously taken by the Commission for disaggregation of support, total support in a study area shall not exceed the support that otherwise would be available in the study area absent disaggregation.³⁰¹ Similar to the former disaggregation rule, the Commission may, on its own motion, or in response to a petition from an interested party, examine the results of any one of the adopted disaggregation methods to ensure that it fulfills the Commission's intended objectives.

140. Carriers may choose to disaggregate their CAF BLS based on a methodology using the density of competitive and non-competitive areas, as proposed by NTCA/USTelecom.³⁰² In particular, this method allocates the revenue requirement between competitive and non-competitive areas, based on the relative density of competitive and non-competitive areas.³⁰³ As explained by NTCA/USTelecom, "[t]he ratio of the calculated non-competitive area's revenue requirement to the sum of the calculated competitive and non-competitive revenue requirements is applied to the study area's actual revenue requirements to ensure the total actual revenue requirement is equal to the sum of the competitive and non-competitive areas' revenue requirements."³⁰⁴

141. The allocation between competitive and non-competitive areas is achieved by calculating a separate cost per loop for competitive and non-competitive areas based on the differing densities of the competitive and non-competitive areas.³⁰⁵ To calculate the disaggregated revenue requirements using

²⁹⁶ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA – The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 1, 3 (filed Jan. 11, 2016) (NTCA Jan. 11, 2016 *Ex Parte* Letter).

²⁹⁷ NTCA Feb. 5 *Ex Parte* Letter, Ex. A.

²⁹⁸ Letter from Trey Judy, Director – Regulatory, Hargray, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at 1 (filed Feb. 5, 2016) (Hargray *Ex Parte* Letter 2); NTCA Feb. 5 *Ex Parte* Letter, Ex. B.

²⁹⁹ NTCA Feb. 5 *Ex Parte* Letter, Ex. C.

³⁰⁰ In addition, the Commission seeks comment on whether to adopt any other disaggregation method in the FNPRM below. We encourage parties to submit simple proposals that could be implemented with minimal burden to impacted carriers and USAC. We are not inclined to adopt a rule that would allow carriers to submit individualized disaggregation proposals requiring case-by-case review.

³⁰¹ See 47 CFR 315(e)(1)(2011).

³⁰² NTCA Feb. 5 *Ex Parte* Letter, Ex. A; Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Ex. A (filed Feb. 10, 2016) (on behalf of NTCA and USTelecom) (amending Feb. 5 proposal and providing an example of density-based disaggregation) (NTCA/USTelecom Feb. 10, 2016 *Ex Parte* Letter).

³⁰³ NTCA/USTelecom Feb. 10, 2016 *Ex Parte* Letter at Ex. A.

³⁰⁴ *Id.*

³⁰⁵ See *id.*

these costs per loop, each cost per loop is multiplied by the number of loops in the corresponding (i.e. competitive or non-competitive) area. The number of loops in each area is calculated by multiplying the total number of loops by the density ratio for the study area. Although NTCA/USTelecom proposed that density for each area be calculated based on the sum of residential and business locations, we are unaware of a publicly available source for business location data. Therefore, consistent with the approach taken for other rule changes adopted in this order that rely on density calculations, we will use U.S. Census housing unit data for the density calculations required for this disaggregation method.

142. Carriers may also may choose to disaggregate their CAF BLS using a ratio of competitive to non-competitive square miles in a study area, as proposed by Hargray.³⁰⁶ Lower-cost areas are generally lower cost because of the presence of a dense cluster of consumers, which causes the cost per loop to be lower.³⁰⁷ Hargray submitted analysis into the record showing how support is reduced in a non-linear manner based on the rate of decline that would be expected if it were possible to specifically capture the loops and costs associated with non-competitive areas.³⁰⁸ As competitive overlap in a study area increases, utilizing this method CAF BLS would be reduced in a non-linear manner that accelerates as competitive overlap reaches 100 percent.³⁰⁹ In particular, under this disaggregation method, support would be reduced using the following schedule:

Competitive Ratio	Reduction Ratio
0%-20%	N/A
25%	3.3%
30%	6.7%
35%	10.0%
40%	13.3%
45%	16.7%
50%	20.0%
55%	25.0%
60%	30.0%
65%	35.0%
70%	40.0%
75%	45.0%
80%	50.0%
85%	62.5%
90%	75%
95%	87.5%
100%	100%

143. By utilizing this mechanism, carriers would not be required to undertake steps to ensure the accuracy of location data or undertake a census block by census block determination of density.³¹⁰ Therefore, by selecting this mechanism, carriers will enjoy relative ease of administration.

³⁰⁶ Hargray *Ex Parte* Letter 2 at 1.

³⁰⁷ *See id.* at 2.

³⁰⁸ *See id.*

³⁰⁹ *See id.*

³¹⁰ Hargray *Ex Parte* Letter 2 at 2.

144. As a third option, we will permit carriers subject to a reduction in support for competitive overlap to elect to utilize an allocation derived from the A-CAM, as suggested by NTCA.³¹¹ In this Order, we adopt a forward-looking cost model that has been modified for use to determine support amounts for rate-of-return carriers that voluntarily elect to receive universal service support.³¹² As we explained, the A-CAM contains a support module, which calculates support on a per-location basis based on its calculation of the costs to serve the locations in every census block. For purposes of the voluntary offer of model-based support, support is only calculated for blocks that are not served by an unsubsidized competitor. The support module can be adjusted, however, to calculate support for the blocks that are competitively served, as well. Thus, support can be divided at the study area level between competitive and non-competitive census blocks. This ratio can be applied to CAF-BLS support to disaggregate support for competitive areas. We note that competitively served census blocks are likely to be the lower cost, more densely populated portions of the study area, in many instances where the model calculates little or even no support. In such cases, a carrier electing this method would see little to no support reduction using the A-CAM allocator, because the model provides support only for the higher cost areas.³¹³

145. We agree with commenters that support reductions associated with competitive areas should be phased in.³¹⁴ As suggested by USTelecom and NTCA,³¹⁵ we adopt the following transition for reductions in CAF BLS in areas that are deemed to be competitively served: where the reduction of CAF BLS from competitive census block(s) represents less than 25 percent of the total CAF BLS support the carrier would have received in the study area in the absence of this rule, disaggregated support associated with the competitive census blocks will be reduced 33 percent in the first year, 66 percent in the second year, with that support associated with the competitive census blocks fully phased-out by the beginning of the third year. Where the reduction of CAF BLS from competitive census blocks represents more than 25 percent of the total CAF BLS support the carrier would have received in the study area in the absence of this rule, disaggregated support associated with the competitive census blocks will be reduced 17 percent in the first year, 34 percent in the second year, 51 percent in the third year, 68 percent in the fourth year, 85 percent in the fifth year, and fully phased-out by the beginning of the sixth year. We also emphasize that carriers affected by implementation of this rule are free to seek a waiver of support reductions under our existing precedent.³¹⁶

6. Budgetary Controls

146. The Commission previously adopted an overall budget of \$4.5 billion for the high-cost

³¹¹ NTCA Feb. 5 *Ex Parte* Letter, Ex. C.

³¹² See *supra* section II.A.

³¹³ For instance, it may be the case that 90% of locations in the study area lie within the census blocks that are deemed competitive, but only 2% of the A-CAM support for the study area is associated with those census blocks. In such case, the A-CAM allocator would be 2% – which would be multiplied by the amount of CAF BLS. Using a numerical example, if the study area would otherwise receive \$60,000 annually in CAF BLS, \$1,200 in annual support would be associated with the competitive area (and subject to reduction), and \$58,800 in CAF BLS would be provided for the non-competitive areas. In some cases, A-CAM may calculate no support for competitively served census blocks, as the average cost per-location is under the funding threshold of \$52.50 per month. In that situation, there would be no support reduction at all for those competitive census blocks.

³¹⁴ USTelecom/NTCA Feb. 6 *Ex Parte* Letter; NTCA Jan. 11, 2016 *Ex Parte* at 1; Letter from Michael R. Romano, Senior Vice President – Policy, NTCA – The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 6 (filed Nov. 24, 2015); Comments of NTCA, WC Docket No. 10-90, at 8 (filed Aug. 8, 2014) (NTCA Aug. 2014 Comments); Comments of USTelecom, WC Docket No. 10-90 at 9 (filed Aug. 8, 2014) (USTelecom Aug. 2014 Comments).

³¹⁵ USTelecom/NTCA Feb. 6 *Ex Parte* Letter.

³¹⁶ See 47 CFR §1.3; see also *infra* n. 404.

program, and a budget within that amount of \$2 billion per year for high-cost support for rate-of-return carriers.³¹⁷ It did not, however, adopt a method for enforcing the budget for rate-of-return carriers. We now adopt a self-effectuating mechanism for controlling total support distributed pursuant to HCLS and CAF BLS to stay within the budget for rate-of-return carriers.³¹⁸

147. The components of the high-cost program other than those for rate-of-return carriers are structured in a fashion that ensures each stays within its respective portion of the \$4.5 billion budget. Because ICLS and CAF ICC are not capped, there is no mechanism today to keep disbursements of high-cost funds to rate-of-return carriers within that \$2 billion budget. Indeed, NECA forecasts that over the next several years, absent any further reforms, total high-cost support (that is, the sum of HCLS, ICLS, and CAF ICC) for the rate-of-return industry will exceed the \$2 billion budget.³¹⁹ It therefore is imperative that we take further steps now to ensure the budget is not exceeded, in the event growth in CAF BLS were to cause total rate-of-return support to exceed the defined budget. Adopting an overall budget control mechanism will provide a predictable and reliable method in the event that demand exceeds the available budget. We note, of course, that the budget control will only be implemented in the event total support is forecasted to exceed the budget in a given year.

148. In implementing measures to stay with the previously adopted budget, we note that the Tenth Circuit has affirmed the Commission's decision to set the rate-of-return budget at \$2.0 billion.³²⁰ The court found reasonable the Commission's determination "that budgetary sufficiency for . . . rate-of-return carriers could be achieved through a combination of measures, including but not limited to: (1) maintaining current USF funding levels while reducing or eliminating waste and inefficiencies that existed in the prior USF funding scheme; (2) affording carriers the authority to determine which requests for broadband service are reasonable; (3) allowing carriers, when necessary, to use the waiver process; and (4) conducting a budgetary review by the end of six years." In this Order, we retain each of these measures to safeguard the sufficiency of the budget. Though some parties have suggested in general terms that the budget should be increased, they have not provided the type of detailed information about why the overall budget is insufficient for the Commission to meet its goal of achieving universal service, nor have they presented individualized circumstances necessary to evaluate their claims. As discussed below, any carrier may seek waiver if it is necessary and in the public interest to ensure that consumers in the area continue to receive service.

149. *Budget Amount.* As noted above, the Commission has set a budget for rate-of-return support of \$2 billion per year, but only one of the existing legacy high-cost mechanisms is subject to a defined cap.³²¹ To calculate the amount of support that will be available for disbursement under HCLS³²² and CAF BLS, the Universal Service Administrator will first determine total demand from rate-of-return carriers (both those that elected model-based support and those that remain on the reformed legacy support mechanisms). Then, USAC will deduct CAF-ICC support for rate-of-return carriers (not including affiliates of price cap carriers) as specified under Commission's rules. Then, during the ten-year term of CAF-ACAM support, the Administrator will further deduct the amount of model-based

³¹⁷ *USF/ICC Transformation Order*, 26 FCC Rcd 17674, 17768, paras. 27, 286. This budget was adopted for 2012-2017. *Id.*

³¹⁸ A budget control mechanism is not necessary for the CAF support provided to carriers electing the model as that amount does not vary from year to year; we establish in this Order the amount authorized for disbursement over the next ten years.

³¹⁹ NECA December 11, 2015 *Ex Parte* Letter.

³²⁰ *See In re: FCC 11-161*, 753 F.3d at 1055-60.

³²¹ We note that HCLS is currently capped. 47 CFR § 54.1302. The rules we adopt here are not intended to modify the operation of that cap, except as specified herein.

³²² HCLS includes safety net additive and safety valve support.

support disbursements to those rate-of-return carriers choosing model-based support and transition payments, as applicable.³²³ The amount remaining will be the total support available to be disbursed under HCLS and CAF BLS.³²⁴ This amount will first be calculated as of July 2016,³²⁵ and will be recalculated on an annual basis to reflect changes in the CAF-ICC amounts paid to carriers.³²⁶

150. *Budget Control Mechanism.* The budget control mechanism we adopt is a variation on the NTCA budget control proposal that NTCA suggested should be applied solely to its DCS broadband-only mechanism.³²⁷ In essence, this proposal represents a compromise between carriers with relatively small numbers of lines but with very high costs and carriers with relatively more lines but with only moderately high costs. We find that it strikes a fair balance among differently-situated carriers.

151. Our budget control mechanism, as described in detail below, will be applied to forecasted disbursements each quarter. For this purpose, forecasted disbursements include payments made for HCLS, payments for CAF BLS based on forecasted data for current period, and true-ups associated with prior years but being disbursed during the current period.³²⁸ There will be no retroactive application of the budget control mechanism.

152. First, a target amount is identified for each mechanism – HCLS and CAF BLS – so that in the aggregate disbursements for the mechanisms equal the budgeted amount for rate-of-return carriers. This targeted amount is calculated by multiplying the forecasted disbursements for each mechanism by the ratio of the budgeted amount to the total calculated support for the mechanisms.³²⁹ This target amount will be calculated for each mechanism once per year prior to the annual filing of the tariffs.³³⁰

153. The reduction of support under each mechanism will be split between a per-line reduction and a pro rata reduction applied to each study area. The per-line reduction will be calculated by dividing one half the difference between the calculated support and the target amount for each mechanism by the total number of eligible loops in the mechanism.³³¹ The pro rata reduction will then be applied as necessary to achieve the target amount. For CAF-BLS, the per-line and pro rata reductions will be calculated once per year, prior to the annual filing of tariffs. For HCLS, the per-line and pro rata

³²³ See *supra* section II.A.2. The additional support provided to facilitate the voluntary path to the model is temporary, and after the end of the ten-year term, the budget control mechanism will apply to all rate-of-return carriers.

³²⁴ For purposes of this rule, the budget mechanism will apply to ICLS until we implement the changes necessary to provide support as CAF BLS.

³²⁵ The Bureau will work with NECA and USAC on the implementation details, including the need for carriers to file mid-year loop counts in the annual cost study data they already file with NECA.

³²⁶ The budget for carriers not electing model support will rise each year over the 10-year term, as the amounts of CAF-ICC support provided to carriers electing the voluntary path to the model decreases. This is consistent with the approach advocated by NTCA. See NTCA Dec. 15, 2015 *Ex Parte* Letter at 2.

³²⁷ NTCA/WT/NECA April 21, 2015 *Ex Parte* Letter, at Attach. 2.

³²⁸ See *infra* section II.B.9 (further discussing the schedule for filing cost and revenue data for CAF BLS and for trueing up CAF-BLS payments for prior periods).

³²⁹ In this case, disbursements include CAF BLS provided on a projected basis, as well as true ups of that mechanism that apply to prior periods. For example, in July 2019, disbursements include HCLS payments being made in the 2019 calendar year, CAF-BLS payments being made on a projected basis for the 2019-20 tariff year, and CAF BLS true-ups associated with the 2017 calendar year. See below for further discussion of the timing of data collection and disbursements.

³³⁰ See *infra* section II.B.9.

³³¹ Because some study areas may have per-line support amounts that are less than the per-line reduction, the per-line reductions as applied may not precisely equal one-half the difference between the calculated support and the target amount. In that case, the remaining reductions will be achieved through the pro-rata reduction.

reductions will be calculated quarterly, using the most recently announced target amount.

154. *HCLS Cap.* As we have done previously when carriers have lost their eligibility for HCLS due to their status as affiliates of price-cap carriers, we direct NECA to rebase the cap on HCLS to reflect the election of model-based support by HCLS-eligible rate-of-return carriers.³³² In the first annual HCLS filing following the election of model-based support, NECA shall calculate the amount of HCLS that those carriers would have received in the absence of their election, subtract that amount from the HCLS cap, then recalculate HCLS for the remaining carriers using the rebased amount.

155. *Attribution of CAF BLS to Common Line and Consumer Broadband Loop Categories.* To permit carriers to submit tariffs that provide a reasonable opportunity to meet their revenue requirements, it is necessary to attribute the CAF BLS that a carrier receives, after any reductions due to the budgetary constraint, to various cost categories. Accordingly, a carrier will first apply the CAF BLS it receives to ensure that its interstate common line and consumer broadband revenue requirements are being met for the periods currently being trued up. For example, from July 1, 2019, to June 30, 2020, true-ups will be made with respect to the 2017 calendar year, and CAF BLS disbursements will first be attributed to the extent necessary to ensure their revenues meet their revenue requirements for 2017. Next, CAF BLS will be applied to meet the carrier's forecasted interstate common line revenue requirement for the current tariff year. This assignment of support plus the revenues from end-user charges will meet the carrier's interstate common line revenue requirement. A carrier will then apply the remainder of its CAF BLS to the forecasted revenue requirement for the new consumer broadband-only loop category during the current tariff year. Any remaining unmet consumer broadband loop revenue requirement will be met through the consumer broadband loop rate.³³³ On the whole, this process targets the budgetary constraint to the broadband-only component of the CAF-BLS mechanism, similar to NTCA's proposal to target the budgetary constraint to its broadband-only DCS mechanism.³³⁴

7. Broadband Deployment Obligations

156. In this section, we take steps to promote "accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results."³³⁵ Specifically, we adopt specific, defined deployment obligations that are a condition of the receipt of high-cost funding for those carriers continuing to receive support based on embedded costs. These measures will help ensure that "[c]onsumers in all regions of the Nation...have access to telecommunications and information

³³² See *USF/ICC Transformation Order*, 26 FCC Rcd at 17760, paras. 258-59; *Connect America Fund et al.*, WC Docket No. 10-90, Order, 29 FCC Rcd 11776, 11777, para. 5 (WCB 2014) (rebasings HCLS cap to reflect Consolidated's acquisition of Enventis). In the *April 2014 Connect America Fund FNPRM*, the Commission proposed to rebase the HCLS cap to reflect the election of model-based support by existing recipients of HCLS. *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7142, para. 286.

³³³ This process will permit, in some cases, consumer broadband-only loop rates to rise above \$42. We note that \$42 is well below the reasonably comparable rate for retail broadband service of \$77.81. FCC, Reasonable Comparability Benchmark Calculator, <https://www.fcc.gov/encyclopedia/reasonable-comparability-benchmark-calculator> (last visited Mar. 4, 2016). On the whole, our actions in this Order will significantly reduce the retail rates paid by broadband-only subscribers, improving the reasonable comparability of rates. We will, however, continue to monitor consumer broadband-only rates to ensure that our policies support reasonable comparability. We note that the Commission has indicated that it will gather more information if ETCs are unable to make the reasonable comparability certification for their broadband rates. *December 2014 Connect America Order*, 29 FCC Rcd at 15701, para. 157.

³³⁴ NTCA/WTN/NECA April 21, 2015 *Ex Parte* Letter.

³³⁵ *USF/ICC Transformation Order*, 26 FCC Rcd at 17670-71, para. 11; see also *id.* at 17681, para. 51 (adopting for the goal of ensuring universal availability of broadband an outcome measure based on the number of residential, business, and community anchor institutions that newly gain access to broadband and adopting as an efficiency measure the change in the number of homes, businesses and community anchor institutions passed or covered per million universal service dollars spent).

services...that are reasonably comparable to those services provided in urban areas.”³³⁶ We note that USTelecom and NTCA recognize that defined buildout obligations are “essential to a broadband reform effort.”³³⁷

157. *Background.* In the *USF/ICC Transformation Order*, the Commission recognized that rate-of-return carriers had for a number of years deployed telecommunications and information services networks, often financed through a combination of loans and universal service support.³³⁸ The Commission stated its expectation that rate-of-return carriers would deploy scalable broadband networks in their communities. While the Commission established a framework of defined performance and deployment obligations tied to the acceptance of specific and predictable support amounts for price cap carriers,³³⁹ it declined to adopt specific buildout milestones for rate-of-return carriers at that time. Instead, pending further consideration of how best to spur deployment of broadband in areas served by rate-of-return carriers, the Commission mandated that rate-of-return-carriers must deploy broadband to the requesting consumer upon reasonable request for service, within a reasonable amount of time.³⁴⁰ In doing so, the Commission recognized that it was building upon longstanding policies regarding the extension of voice service, including state policies for line extensions. The Commission indicated that it would monitor the progress of rate-of-return carriers in deploying broadband to their communities through annual reporting requirements, including the requirement to report the number of unfulfilled service requests.

158. The Commission subsequently clarified which requests should be deemed unreasonable. In the *April 2014 Connect America Order*,³⁴¹ we stated that rate-of-return carriers evaluating a request to extend broadband service should consider a number of factors, such as whether new plant is required to service a location in a first instance, anticipated end-user revenues, and whether the request would require new investments that would cause total high-cost support (exclusive of CAF-ICC support) to exceed \$250 per line per month in a given study area.³⁴² We recognized that some number of locations in rate-of-return areas likely are extremely high-cost and for that reason, we declared that a request is not reasonable if it would require a carrier to undertake new network upgrades merely for the purpose of newly providing broadband service in study areas where total support is already subject to the \$250 per line monthly cap.³⁴³ The Commission also determined that a rate-of-return carrier has no obligation to extend broadband-capable infrastructure in any census block that is served by an unsubsidized competitor that meets the Commission’s then-current performance standards.³⁴⁴ Lastly, the Commission reiterated that

³³⁶ 47 U.S.C. § 254(b)(3).

³³⁷ USTelecom/NTCA Feb. 6 *Ex Parte* Letter.

³³⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17740, para. 205.

³³⁹ *See id.* at 17717, para. 137.

³⁴⁰ *See id.* at 17740-41, paras. 205-209. Prior to adoption of the *USF/ICC Transformation Order*, a federal designated ETC was required under former section 54.202(a)(1)(i) to “commit to provide service throughout its proposed designated service area to all customers making a reasonable request for service.”

³⁴¹ *See April 2014 Connect America Order*, 29 FCC Rcd at 7070-75, paras. 59-72.

³⁴² *See id.* at 7071-72, paras. 64-66. In the *USF/ICC Transformation Order*, the Commission adopted section 54.302 of the Commission’s rules, which established a presumptive per line cap of \$250 per month on total high-cost universal service support for all ETCs. 47 CFR § 54.302. The Commission concluded that support in excess of that amount should not be provided without further justification. *USF/ICC Transformation Order*, 26 FCC Rcd at 17765, para. 274.

³⁴³ *See April 2014 Connect America Order*, 29 FCC Rcd at 7073-74, paras. 67, 71.

³⁴⁴ *See id.* at 7073, para. 68. In the Elimination of Subsidies in Competitive Areas section of this Order, we outline the current process for determining whether an area is sufficiently served by a competitor. *See supra* section II.B.5.

rate-of-return carriers are free to deploy alternative technologies in areas determined to be beyond a reasonable request for the extension of fiber in order to meet customer demand.³⁴⁵

159. To develop a “uniform national framework for accountability,”³⁴⁶ the Commission required in the *USF/ICC Transformation Order* that all ETCs subject to broadband public interest obligations develop five-year service quality improvement plans.³⁴⁷ In their five-year plans, ETCs were required to “describe with specificity proposed improvements or upgrades” to their networks throughout their service areas³⁴⁸ and “include a self-certification letter certifying that they are taking reasonable steps to offer broadband...through their service area, and that requests for such service are met within a reasonable amount of time.”³⁴⁹ The Commission concluded that the requirement to submit to the Commission, USAC, and the relevant state regulator (or Tribal government, where applicable) five-year plans is “critical to ensure appropriate use of high-cost support and to allow the Commission to determine whether it is achieving its goals efficiently and effectively.”³⁵⁰

160. Beginning in the *USF/ICC Transformation Order*, the Commission made clear that universal service support was to be used “in a manner consistent with achieving universal availability of voice and broadband.”³⁵¹ In the *April 2014 Connect America FNPRM*, the Commission specifically sought comment on “the best way to encourage continued investment in broadband networks throughout rural America to ensure that all consumers have access to reasonably comparable services at reasonably comparable rates.”³⁵² It proposed the creation of a “Connect America Fund to make more efficient use of universal service funds and encourage the deployment of broadband capable networks...for use in rate-of-return territories.”³⁵³ In doing so, the Commission expressly recognized the need to “wind down the existing HCLS and ICLS mechanisms” and to foster deployment of broadband throughout rate-of-return service areas through a new Connect America Fund.

161. NTCA, USTelecom, and WTA submitted a proposal into the record for deployment obligations for rate-of-return companies receiving high-cost support based on embedded costs.³⁵⁴ Under this proposal, rate-of-return carriers would provision service at the then-current section 706 speed standard upon reasonable request.³⁵⁵ However, if a carrier is incapable of deploying service reflective of the then-current section 706 speed standard to a customer upon reasonable request, the carrier must provide the level of service consistent with the reasonable request standard.³⁵⁶ In addition, NTCA,

³⁴⁵ See *April 2014 Connect America Order*, 29 FCC Rcd at 7075, para. 72.

³⁴⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17850, para. 573.

³⁴⁷ *Id.* at 17854, para. 587; see 47 CFR § 54.202(a)(1)(ii). Subsequently, the Bureau waived the requirement for price cap carriers to file five-year plans until after such carriers accept Connect America Phase II support; only those price cap ETCs that accept Phase II funding are required to file five-year plans. See *ETC Reporting Clarification Order*, 28 FCC Rcd at 2054, para. 8.

³⁴⁸ 47 CFR § 54.202(a)(1)(ii).

³⁴⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17855, para. 588.

³⁵⁰ See *id.* at 17850, para. 573.

³⁵¹ See *id.* at 17740, para. 205.

³⁵² See *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7134, para. 258.

³⁵³ See *id.* at 7137, para. 268.

³⁵⁴ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at 2 (filed Dec. 16, 2015) (NTCA, USTelecom, & WTA Dec. 16, 2015 *Ex Parte* Letter).

³⁵⁵ See *id.*

³⁵⁶ See *id.* For example, under the joint association proposal, under the Commission’s current standard “advanced telecommunications capability” as defined in section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 1302, the carrier would first be required to attempt to deploy 25/3 Mbps service to the customer upon reasonable request.

(continued....)

USTelecom, and WTA proposed that rate-of-return carriers be required to target 10 percent of support received for that year toward a goal of delivering broadband at the then-current section 706 speed standard to those locations lacking even 4/1 Mbps service.³⁵⁷ Subsequently, USTelecom and NTCA jointly proposed that the Commission establish defined obligations to extend 10/1 Mbps service to a specific number of locations that lack such service based on a sliding percentage of CAF BLS support over a defined five year period.³⁵⁸

162. *Discussion.* In this section, to ensure that we make progress towards achievement of universal service, consistent with the statute, we adopt defined performance and deployment obligations for rate-of-return carriers. The Commission's goal is to utilize universal service funds to extend broadband to high-cost and rural areas where the marketplace alone does not currently provide a minimum level of broadband connectivity,³⁵⁹ and "to distribute universal service funds as efficiently and effectively as possible."³⁶⁰ As noted above, in the *USF/ICC Transformation Order*, the Commission built upon the existing reasonable request standard, adopted a requirement to report unfulfilled service requests, and required carriers to develop a five-year plan to ensure that consumers in hard-to-serve areas have sufficient access to broadband, while also ensuring universal service support is utilized as effectively as possible.³⁶¹ Through the adoption of rules to transform ICLS into the CAF-BLS mechanism, we now build on the foundation the Commission established in the *USF/ICC Transformation Order* to distribute support equitably and efficiently and advance the Commission's longstanding objective of closing the rural-rural divide.³⁶²

163. We conclude that it now is time to establish defined deployment obligations for every carrier to ensure we have a framework to achieve our goal of universal service. As noted above, ETCs are currently required to "describe with specificity proposed improvements or upgrades" to their network throughout their service area in their five-year plans."³⁶³ The Commission did not specify specific numerical targets for those five-year plans, however, which has hampered our ability to judge whether carriers are in fact taking reasonable steps to extend broadband service. We note that although many rate-of-return carriers have aggressively deployed broadband service within their study areas, that progress has not been evenly distributed. Indeed, while some carriers have deployed 10/1 Mbps service to 99 -100 percent of the census blocks within their study areas, other carriers have not deployed to any.³⁶⁴

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However, if the carrier cannot deliver 25/3 Mbps, then the carrier would be required to deliver 10/1 Mbps to the customer upon reasonable request. *See id.*

³⁵⁷ *See id.*

³⁵⁸ USTelecom/NTCA Feb. 5 *Ex Parte* Letter.

³⁵⁹ *See December 2014 Connect America Order*, 29 FCC Rcd at 15649, para. 15.

³⁶⁰ *USF/ICC Transformation Order*, 26 FCC Rcd at 17673, para. 20.

³⁶¹ *See id.* at 17740-41, paras. 205-209.

³⁶² The Commission continues to look for ways to advance deployment on Tribal lands. *See* Government Accountability Office, Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands GAO 16-222 (January 2016), <http://www.gao.gov/assets/680/674906.pdf> (January 2016 GAO Tribal Report); *see also infra* section IV.C. We seek comment today on ways to do so, including the proposal submitted by the National Tribal Telecommunications Association (NTTA) to make additional support available to rate-of-return carriers serving Tribal lands. *See infra* section IV.C. Once the comment cycle is complete, we will review the record and commit to take action before the end of the year to further promote broadband deployment on Tribal lands where it is now lacking.

³⁶³ 47 CFR § 54.202(a)(1)(ii).

³⁶⁴ *See* Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477> (last visited Mar. 4, 2016).

164. Given the lack of any deployment by some providers and extremely low levels of deployment by others, we conclude that some concrete standards for deployment are necessary to achieve the Commission's goal of extending broadband to those areas of the country where it is lacking.³⁶⁵ Indeed, we have seen little to no progress in deployment since the *USF/ICC Transformation Order* for some areas, and there is no evidence that consumers in those areas will receive access to broadband absent a more objective, measurable requirement to do so.

165. To ensure that universal service support is utilized as effectively as possible in furtherance of the Commission's goal to achieve universal service,³⁶⁶ the five-year plan must operate as a meaningful tool for Commission oversight and possess quantifiable objective goals that can be easily measured and monitored. In this Order, the Commission has replaced ICLS with Broadband Loop Support so that all rate-of-return carriers can receive support for broadband-only lines.³⁶⁷ We are eager to see that this support results in more widespread deployment. Moreover, in this Order, we set allowances for capital expenses, which will result in a larger budget for carriers whose deployment is less than the national average.³⁶⁸ However, that reform, by itself, does not guarantee that a carrier will make the investments needed to connect unserved consumers. Accordingly, in conjunction with our adoption of the updated CAF-BLS mechanism and capital expense allowances, we adopt refinements to the current five-year plan requirements designed to increase accountability and ensure the extension of broadband to those areas of the country where it is lacking. In particular, we adopt a specific methodology to determine each carrier's deployment obligation over a defined five-year period, which will be used to monitor carrier performance.

166. *Methodology for Establishing Deployment Obligations.* In this section we describe the specific methodology used to determine each carrier's deployment location obligation over a defined five-year period. The deployment obligation will be based on the carrier's forecasted CAF BLS, and a cost per location metric, using one of two methods, as suggested by commenters.³⁶⁹ To enable each carrier the flexibility to determine which approach best reflects the unique characteristics of their service territory, a carrier may choose to either have its deployment obligation determined based on (1) the average cost of providing 10/1 Mbps service, based on the actual costs of carriers with similar density that have widely deployed 10/1 service,³⁷⁰ or (2) the A-CAM's calculation of the cost of providing 10/1 Mbps service in the unserved census blocks in the carrier's study area.³⁷¹ Carriers will be required to notify USAC which method they elect. USAC will perform the mathematical calculations and provide to the Bureau a schedule of broadband obligations for each carrier, which then will be published in a public notice. We describe more fully each of these methods below.³⁷²

167. Under the first step in this methodology, we will develop a five-year forecast of the total CAF-BLS support for each rate-of-return carrier, which will include support for stand-alone broadband

³⁶⁵ NTCA, USTelecom, & WTA Dec. 16, 2015 *Ex Parte* Letter at 2.

³⁶⁶ 47 U.S.C. § 254(b).

³⁶⁷ *See supra* section II.B.2.

³⁶⁸ *See supra* section II.B.4.

³⁶⁹ Letter from Michael R. Romano, Senior Vice President – Policy, NTCA – The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 1 (filed Feb. 8, 2016)(reflecting joint NTCA and USTelecom *ex parte*) (NTCA/USTelecom Feb. 8, 2016 *Ex Parte* Letter).

³⁷⁰ *See id.* at 1.

³⁷¹ *See id.*

³⁷² If a carrier has materially higher costs than calculated under either of these methods, it is free to present those circumstances to the Commission. We also note that carriers affected by implementation of this rule are free to seek a waiver of support reductions under our existing precedent. *See* 47 CFR §1.3; *see also infra* n. 404.

loops.³⁷³ We agree with commenters that knowing the level of anticipated support is helpful when developing any associated deployment obligations.³⁷⁴ Therefore, we are confident that basing the new deployment obligation on a support forecast will give carriers the relative certainty they desire in their support going forward, allowing them to plan new investment.³⁷⁵ We note that if a carrier's CAF BLS is subsequently reduced based on the implementation of competitive overlap rule adopted above, USAC will then recalculate that carrier's deployment obligation based on a revised forecast of that carrier's CAF BLS.³⁷⁶

168. Each rate-of-return carrier that continues to receive support based on the reformed legacy mechanisms will be required to target a defined percentage of its five-year forecasted CAF-BLS support to the deployment of broadband service where it is currently lacking. The percentage of support will be determined on a carrier-by-carrier basis for a five-year period. Specifically, consistent with the framework suggested by the rural associations,³⁷⁷ rate-of-return carriers with less than 20 percent deployment of 10/1 Mbps broadband service in their entire study area, based on June 2015 FCC Form 477 data, will be required to utilize 35 percent of their five-year forecasted CAF-BLS support specifically for the deployment of 10/1 Mbps broadband service where it is currently lacking. Rate-of-return carriers with more than 20 percent or greater but less than 40 percent deployment of 10/1 Mbps broadband service in their entire study areas, will be required to utilize 25 percent of their five-year forecasted CAF-BLS support specifically for the deployment of broadband service where it is currently lacking. Rate-of-return carriers with 40 percent or greater but less than 80 percent deployment of 10/1 Mbps broadband service in their entire study areas, will be required to utilize 20 percent of their five-year forecasted CAF-BLS support specifically for the deployment of broadband service where it is currently lacking.

169. Deployment obligations will then be determined by dividing the dollar amount of the targeted CAF BLS by a cost-per-location figure. First, the Bureau will prepare a list of all rate-of-return carriers with at least 95 percent deployment of 10/1 Mbps broadband service within their study areas, based on the most recent publicly available FCC Form 477 data.³⁷⁸ The Bureau will sort the carriers into a number of groups based on the density of housing units per square mile, utilizing publicly available U.S. Census data.³⁷⁹ Any carriers subject to the current \$250 per line per month cap and the newly

³⁷³ The assumptions for the forecast are specified in Appendix E. Throughout this proceeding, NECA has modeled and forecasted support for each rate-of-return carrier based on various hypothetical mechanisms and conditions. *See, e.g.*, Letter from Regina McNeil, Vice President of Legal, General Counsel & Corporate Secretary, NECA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al. (filed Nov. 19, 2015) (NECA November 19, 2015 *Ex Parte* Letter). For purposes of this rule, we adopt growth assumptions similar to "Scenario 1" in NECA's submission. We direct NECA to prepare forecasts utilizing these assumptions in consultation with the Bureau and submit them to USAC within 60 days of the release of a Public Notice announcing that the Commission has obtained the appropriate Paperwork Reduction Act approval. USAC is directed to validate any calculations submitted by NECA to ensure they are accurate and reflect the specified assumptions. *See generally* 47 CFR §54.707 (establishing authority of USAC to audit carriers' data submissions and to obtain all carrier submissions, and underlying information, from NECA).

³⁷⁴ NTCA, USTelecom, & WTA Dec. 16, 2015 *Ex Parte* Letter at 2.

³⁷⁵ *See* Letter from Michael R. Romano, Senior Vice President – Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 1 (filed Jan. 13, 2015) (NTCA January 13, 2015 *Ex Parte* Letter).

³⁷⁶ Carriers cannot use locations in areas determined to be competitive based on the competitive overlap determination to meet their deployment obligation.

³⁷⁷ USTelecom/NTCA Feb. 5 *Ex Parte* Letter.

³⁷⁸ We believe it is reasonable to assume that if a rate-of-return carrier is nearly fully deployed with 10/1 Mbps broadband service, the carrier has recently upgraded its network and its current cost per loop is a reasonably good proxy for the cost per line associated with extending 10/1 Mbps broadband.

³⁷⁹ This is similar to what NECA did when modeling the potential impact of various alternatives under consideration in this proceeding. *See* NECA November 19, 2015 *Ex Parte* Letter. In the support forecasts that NECA submitted
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adopted opex limits will be excluded from the analysis.³⁸⁰ Then, USAC will determine the weighted average cost per loop for the carriers that are 95 percent or greater deployed for each density grouping, based on NECA cost data. Carriers with 95 percent or greater deployment of 10/1 Mbps broadband are likely to have deployed broadband relatively recently, so the average should be generally reflective of the cost that carriers have incurred to upgrade their networks.³⁸¹ USAC also will determine the weighted average of the cost per loop for carriers in the same density band with a similar level of deployment, and then will increase that figure by 150 percent.³⁸² This is similar to the approach advocated by NTCA and USTelecom, who suggested that we use a figure that is “at least 150 percent of the average cost per loop” of those carriers with comparable density and deployment.³⁸³ It is reasonable to assume that many of the locations left unserved will have costs higher than the current average cost per loop, which by definition averages the lowest cost and the higher cost locations. Given that the carriers subject to the defined deployment are those that have deployed 10/1 Mbps broadband to less than 80% of their locations, it also is reasonable to assume that they would choose to meet their deployment obligations by extending service to their least costly unserved locations, and not the most expensive unserved locations. Therefore, we conclude that a 150 percent increase above the weighted average cost per loop of companies with similar density and deployment levels is a reasonable approach that takes into account that costs will likely higher when carriers extend broadband into unserved areas.

170. If the 150 percent of the weighted average of companies with similar density and deployment is greater than the figure derived from companies of similar density that have deployed to 95 percent or more of locations, that larger figure will be the cost per location metric used to size the obligation to deploy 10/1 Mbps broadband service. USAC then will divide each carrier’s specific five-year forecasted CAF-BLS support amount by the specific embedded cost per location figure.³⁸⁴ The quotient of this calculation will result in the exact number of locations a carrier electing this option is required to deploy 10/1 Mbps broadband service to pursuant to its five-year plan.

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into the record in this proceeding, NECA utilized locations per square mile to determine density. NECA calculated square miles based on study area boundary maps. *See id.* at Attach. 3.

³⁸⁰ The Bureau also may exclude any carrier whose costs appear to be an outlier within a given density grouping,

³⁸¹ The Commission finds that this process is reasonable because a carrier’s weighted average cost per loop is based on its particular density grouping, thus taking into account costs for similarly-situated carriers.

³⁸² We note by way of comparison that the A-CAM model demonstrates that the average cost for the most expensive locations is significantly higher than the lowest cost locations, when grouped into five tiers from lowest cost to highest cost. In particular, in the current version of the A-CAM, the average cost per location for the second to lowest cost tier of census blocks is 129.4% higher than the average cost for the lowest cost tier of census blocks; the average cost for the middle tier of census blocks is 128.9% higher than the second lowest cost tier; the average cost for the second highest cost tier of census blocks is 147.6% higher than the average cost of the middle tier; and the average cost for the highest cost tier of census blocks is 345.2% higher than the cost for the second highest tier. Given that the carriers subject to the defined deployment are those that have deployed 10/1 Mbps broadband to less than 80% of their locations, it is reasonable to assume that they would choose to meet their deployment obligations by extending service to their least costly unserved locations, and not the most expensive unserved locations. Therefore, we believe that a 150% increase above the weighted average cost per loop of companies with similar density and deployment levels is a reasonable approach that takes into account that costs will rise as carriers extend broadband into unserved areas.

³⁸³ NTCA/USTelecom Feb. 10 *Ex Parte* Letter.

³⁸⁴ To illustrate the procedure described above, we provide the following example. Carrier X must target \$100,000 of its CAF-BLS support to locations in those census blocks lacking 10/1 Mbps broadband service within its study area. Carrier X’s study area has a density of 8 locations per square mile. For carriers offering 10/1 Mbps broadband to at least 95% of the locations in their study areas with a density of 3-10 locations per square mile, the average cost per loop is \$1,500. To determine the number of new locations that Carrier X must deploy 10/1 Mbps broadband service to as part of its new five-year plan, USAC will divide \$100,000 by \$1,500; the result is 67 locations.

171. As an alternative to the approach outlined above, carriers may elect to have their deployment obligations determined based on the cost per location for that carrier as reflected in the adopted version of the A-CAM, as suggested by NTCA and USTelecom.³⁸⁵ For this purpose, the relevant figure will be the calculated cost for those census blocks that are unserved with 10/1 Mbps, using the cost module. USAC will divide each carrier's specific amount of forecasted CAF-BLS support amount by the A-CAM calculated, carrier specific, average cost per location for unserved areas. The quotient of this calculation will result in the exact number of locations a carrier electing this option is required to deploy 10/1 Mbps broadband service to pursuant to its five-year plan.

172. *Deployment Requirements.* In this section, we discuss in more detail the specific obligations of rate-of-return carriers subject to the refined five-year plan requirements. We recognize that certain locations in rate-of-return areas may be very costly to serve, and requiring buildout to these locations could place high demands on both rate-of-return carriers and consumers across the United States who ultimately pay for USF. That is why we conclude – much like the Commission did in the *April 2014 Connect America Order*³⁸⁶ – that we will not require deployment using terrestrial wireline technology for any rate-of-return carrier in any census block if doing so would result in total support per line in the study area to exceed the \$250 per-line per-month cap.³⁸⁷

173. We conclude that rate-of-return carriers with 80 percent or greater deployment of 10/1 Mbps broadband service in their entire study areas, as determined by the Bureau based on June 2015 FCC Form 477 data, will not have specific buildout obligations as a condition of receiving CAF-BLS support. However, those carriers must continue to deploy 10/1 Mbps or better broadband service where cost-effective and utilize alternative technologies where terrestrial wireline infrastructure is too costly,³⁸⁸ and report, as part of their annual Form 481 filing, progress on the number of locations where 10/1 Mbps or better broadband service have been deployed within their study area in the prior calendar year.³⁸⁹ We will continue to monitor the deployment progress of these carriers: we may revisit this framework in the future if such carriers do not continue to make reasonable progress on extending broadband.

³⁸⁵ NTCA/USTelecom Feb. 8, 2016 *Ex Parte* Letter.

³⁸⁶ The Commission declared that a request is not reasonable if it would require a carrier to undertake new network upgrades merely for the purpose of newly providing broadband service in study areas where total support is already subject to the \$250 per line monthly cap. See *April 2014 Connect America Order*, 29 FCC Rcd at 7071-72, paras. 64-66.

³⁸⁷ 47 CFR § 54.302. We also note that, pursuant to the capital budget allowance we adopt above, rate-of-return carriers may not exceed \$10,000 per location/per project when deploying broadband service utilizing terrestrial wireline technology. See *supra* section II.B.4. However, most carriers with less than 80% deployment of 10/1 Mbps broadband service in their study areas likely have lower-cost locations for which they may target for broadband deployment, without implicating the \$10,000 per location capex limit. To the extent a carrier only has locations that exceed the \$10,000 per location limit, it may bring those special circumstances to our attention. However, if a carrier's defined five-year deployment obligation can be fulfilled with locations within the \$10,000 per location limit but doing so would cause that carrier to exceed its capital allowance, it may do so to the extent required to meet its deployment obligation and should be prepared to provide a certification by an engineer licensed in the state(s) in which the construction will take place that the expenditures above the capital allowance were necessary to meet the carrier's deployment obligation. See NTCA/Vantage Point Feb. 18, 2016 *Ex Parte* Letter at 2 (stating that a carrier seeking a waiver to exceed capital budget allowances should "permitted to submit engineering documents certified and stamped by a professional engineer showing what those actual costs are").

³⁸⁸ We emphasize that any CAF-BLS funding earmarked for the purpose of extending 10/1 Mbps service to census blocks lacking such service may not be used to improve speeds for those locations to which 10/1 Mbps service has already been deployed. In other words, carriers should not be upgrading some customers to 25/3 Mbps service and beyond while other customers lack 10/1 Mbps service unless further extension of 10/1 Mbps service would exceed the cost limitations and use of alternative technologies is infeasible. We also note that carriers can and should utilize other support (i.e. HCLS) where available to continue to extend broadband service.

³⁸⁹ NTCA, USTelecom, & WTA Dec. 16, 2015 *Ex Parte* Letter at 2.

174. We conclude that carriers subject to a defined five-year deployment obligation may choose to meet their obligation at any time during the five-year period. For example, a carrier can evenly space out construction to targeted locations on an annual basis or complete all of its required deployment within a single year. However, should any carrier subject to a defined five-year deployment obligation fail to complete the deployment within the stipulated five-year period, the carrier is potentially subject to reductions in support pursuant to section 54.320(c) of the Commission's rules, to be determined on a case-by-case basis.³⁹⁰ In situations where the carrier makes no progress towards meeting its defined five-year deployment obligation, and fails to establish extenuating circumstances, the Commission reserves the right to include such census blocks in an upcoming auction.

175. The Commission recognizes that even after the conclusion of the initial five-year period, additional efforts will be necessary "to encourage continued investment in broadband networks throughout rural America to ensure that all consumers have access to reasonably comparable services at reasonably comparable rates."³⁹¹ Therefore, we conclude that carriers with less than 80 percent deployment of broadband service meeting then-current standards in their study areas will be required to utilize a specified percentage of their five-year forecasted CAF BLS to deploy broadband service meeting the Commission's standards where it is lacking in subsequent five-year periods.³⁹² The same methodology will be used, with USAC updating the average cost per loop amounts, based on the then-current NECA cost data, and the Bureau updating the density groupings and percentage of deployment figures, as appropriate.³⁹³

176. We conclude that the approach outlined above improves on the proposal initially submitted by NTCA, USTelecom, and WTA that rate-of-return carriers in receipt of BUSS support utilize at least 10 percent of their support "toward the goal of delivering broadband at the then-current 706 broadband speed to '4/1[Mbps] Unserved Locations.'"³⁹⁴ The associations' earlier proposal failed to include any quantifiable deployment objectives, making it an ineffective tool for Commission oversight. Moreover, the Associations' proposal placed too much emphasis on achieving the deployment of advanced telecommunications capability, rather than the standards that the Commission has established as its minimum expectation for universal service.³⁹⁵ We note that USTelecom and NTCA more recently indicated their support for the framework adopted in this Order.³⁹⁶ To ensure that universal service support is used as effectively as possible to close the rural-rural divide,³⁹⁷ the Commission must be able to measure and monitor the deployment objectives outlined in a carrier's five-year plan. As noted above,

³⁹⁰ 47 CFR § 54.320(c). One relevant factor would be if the amount of CAF BLS received over the five-year period was significantly lower than the forecast due to the operation of the budget control. *See* USTelecom/NTCA Feb. 6 *Ex Parte* Letter.

³⁹¹ *See April 2014 Connect America FNPRM*, 29 FCC Rcd at 7134, para. 258.

³⁹² As noted above, commenters suggested that each rate-of-return carrier should utilize at least 10% of their annual BUSS support towards delivering broadband at the then-current 706 speed standard to unserved locations. *See* NTCA, USTelecom, & WTA Dec. 16, 2015 *Ex Parte* Letter at 2.

³⁹³ At that time, the Bureau will examine the density groupings, and determine whether any adjustments should be made based on then-current U.S. Census data.

³⁹⁴ NTCA, USTelecom, & WTA Dec. 16, 2015 *Ex Parte* Letter at 2.

³⁹⁵ In the *December 2014 Connect America Order*, the Commission stated that the "objective with high-cost support is to extend broadband-capable infrastructure to as many high-cost locations as efficiently as possible," which also ensuring the best utilization of "funds that consumer and businesses pay into the universal service system." *December 2014 Connect America Order*, 29 FCC Rcd at 15649-50, para. 17. The Commission found that best way to implement these universal service objectives and the statutory language of section 254 was to establish a speed standard of 10/1 Mbps. *See id.*; 47 U.S.C. § 254(b)(3).

³⁹⁶ USTelecom/NTCA Feb. 6 *Ex Parte* Letter.

³⁹⁷ *See USF/ICC Transformation Order*, 26 FCC Rcd at 17740-41, paras. 205-209.

deployment has not been consistent across all rural areas. Therefore, it is critical that the Commission have a method to evaluate progress towards meeting the established minimum 10/1 Mbps standard for high-cost support in each study area and determine if remedial action is warranted.

177. On an ongoing basis, the Commission will assess broadband deployment progress for all rate-of-return carriers based on carriers' annual reporting on the progress of their broadband deployment,³⁹⁸ and make adjustments, where warranted.

178. *Reasonable Request Standard.* In addition to defined obligations to extend service to a subset of locations within a five-year period, rate-of-return carriers remain subject to the reasonable request standard for their remaining locations. Rate-of-return carriers are required to demonstrate in an audit or other inquiry that they have a documented process for evaluating requests for service under the reasonable request standard and produce the methodology for determining where upgrades are reasonable.³⁹⁹ Carriers that make no progress in extending broadband to locations unserved with 10/1 Mbps broadband over an extended period of time should be prepared to explain why that is the case.

179. The Commission also takes further action to implement the existing reasonable request standard to ensure that consumers in remote areas are served.⁴⁰⁰ The Commission previously sought detailed comment on implementation of the Remote Areas Fund, including the option of using a competitive process to award support for such areas.⁴⁰¹ Carriers will be invited later this year to identify those census blocks where they do not anticipate being able to deploy service under the existing reasonable request standard (i.e. where it is unreasonable to extend broadband meeting the Commission's current requirements) for inclusion in the next Commission auction.⁴⁰² We direct the Bureau to issue a public notice setting a deadline for identifying such census blocks in advance of the timeframe for finalizing the list of eligible areas that will be subject to auction.

180. We note that should a carrier choose to place census blocks in the next Commission auction and another entity is authorized to receive support for those census blocks to provide voice and broadband service subsequent to the auction, the incumbent will not be subject to the reasonable request standard and no longer will receive support for those areas.

8. Impact of These Reforms

181. The adoption of the voluntary path to the model, coupled with our update to the existing ICLS mechanism to provide support for broadband-only loops, should be beneficial to carriers that are high-cost, but no longer receive HCLS support due to the so-called "cliff effect." We note that the revenue benchmark we set for broadband-only loops is lower than the effective benchmark for HCLS, which only provides support for carriers with an average loop cost of at least 115 percent of the frozen NACPL. Because the NACPL is frozen at \$647.87, a carrier only receives HCLS if its average cost per loop on an annual basis is higher than \$745.06, or \$62.09 per month.⁴⁰³ Thus, our reformed CAF-BLS

³⁹⁸ See *supra* section II.E.

³⁹⁹ Carriers should be prepared to demonstrate in an audit or other context how they evaluate requests under the reasonable request standard. We expect all carriers to be able to produce documents describing the standards they use to process such requests.

⁴⁰⁰ See *April 2014 Connect America Order*, 29 FCC Rcd at 7070-75, paras. 59-72. *C.f.* 47 CFR § 54.202 (requiring any carrier petitioning to be federally-designated ETCs to "[c]ommit to provide service throughout its proposed designated service area to all customers making a reasonable request for service" and to certify that it will provide service "on a timely basis" to customers within its existing network coverage and "within a reasonable time" to customers outside of its existing network coverage if service can be provided at reasonable cost).

⁴⁰¹ *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18092-18108, paras. 1223-1295.

⁴⁰² See *April 2014 Connect America Order*, 29 FCC Rcd at 7070-75, paras. 59-72.

⁴⁰³ 47 CFR § 54.1309.

mechanism will provide cost recovery for broadband-only loops for many carriers that no longer are eligible for HCLS support. This is one of the reasons why we conclude that over the long run, CAF BLS will be more sustainable and equitable than HCLS and the former ICLS, supporting new broadband deployment to areas where providers have been unable to build absent some subsidy.

182. We will monitor the progress in broadband deployment under the strengthened requirements for broadband deployment and may take further action in the future should it appear that despite these reforms, some high-cost areas remain unserved. We solicit input from all interested parties in the FNPRM as to whether there are other changes we could make to our high-cost program, working within the defined budget, that would create additional incentives to deploy broadband for companies in areas where end user revenues alone are insufficient to make a business case to deploy broadband.

183. In our predictive judgment, the mechanisms that we adopt today to keep disbursements within the previously adopted budget will provide rate-of-return carriers with support that is sufficient to meet the Commission's universal service goals. If any carrier believes that the support it receives is insufficient, it may seek a waiver of our rules. As the Commission noted in the *USF/ICC Transformation Order*, "any carrier negatively affected by the universal service reforms . . . [may] file a petition for waiver that clearly demonstrates that good cause exists for exempting the carrier from some or all of those reforms, and that waiver is necessary and in the public interest to ensure that consumers in the area continue to receive voice service."⁴⁰⁴ The Commission stated that "[w]e envision granting relief only in those circumstances in which the petitioner can demonstrate that the reduction in existing high-cost support would put consumers at risk of losing voice services, with no alternative terrestrial providers available to provide voice telephony service."⁴⁰⁵ It expressly noted that parties requesting such a waiver would be subject to "a process comparable to a total earnings review."⁴⁰⁶ The Commission indicated that it did not anticipate granting waiver requests routinely or for "undefined duration[s]"⁴⁰⁷ and provided guidance on the types of information that would be relevant for such requests.⁴⁰⁸ In the *Fifth Order on Reconsideration*, the Commission further clarified that "we envision granting relief to incumbent telephone companies only in those circumstances in which the petitioner can demonstrate that consumers served by such carriers face a significant risk of losing access to a broadband-capable network that provides both voice as well as broadband today, at reasonably comparable rates, in areas where there are

⁴⁰⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17839-40, paras. 539-40. The Commission's intent in discussing waivers relating to reductions in federal universal service fund (USF) support was not to replace the ordinary standard for granting waivers under section 1.3 of the Commission's rules, but rather to provide guidance in advance to potential applicants of the circumstances that would be persuasive and compelling grounds for grant of a waiver under that waiver standard to assist potential applicants in effectively formulating their waiver petitions. See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Fifth Order on Reconsideration, 27 FCC Rcd 14549, 14556-57, para. 19 (2012) (*Connect America Fund Fifth Order on Reconsideration*). Generally, the Commission's rules may be waived if good cause is shown. 47 CFR § 1.3. The Commission may exercise its discretion to waive a rule where the particular facts make strict compliance inconsistent with the public interest. *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*). In addition, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis. *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

⁴⁰⁵ *USF/ICC Transformation Order*, 26 FCC Rcd at 17840, para. 540.

⁴⁰⁶ *Id.* at 17739, 17840, paras. 202, 540.

⁴⁰⁷ *Id.* at 17766, para. 278.

⁴⁰⁸ *Id.* at 17840-42, paras. 542, 544. As the Commission explained, petitions for waiver must "include all financial data and other information sufficient to verify a carrier's assertions" including detailed affiliate financial and cost allocation data. See *id.* at 17840-1, para. 542. We also emphasize that the Commission may, in the context of a waiver or otherwise, obtain access to any and all financial and operational information kept by the carrier, including audited financial reports and statements. See 47 U.S.C. § 220(c).

no alternative providers of voice or broadband.”⁴⁰⁹ We note that the Tenth Circuit upheld the Commission’s decision to set the high-cost universal service budget for rate-of-return carriers at \$2.0 billion, and endorsed the use of the waiver process as a means to address any special circumstances when the application of the budget may result support that is insufficient for a carrier to meet its universal service obligations.⁴¹⁰ We further note that to the extent parties seek a waiver on the ground that support is insufficient, we may request additional documentation pursuant to section 220(c) of the Act, to ensure that we have a full and complete basis for decision.⁴¹¹

184. Finally, we note that the promotion of universal service remains a federal-state partnership.⁴¹² We expect and encourage states to maintain their own universal service funds, or to establish them if they have not done so. The expansion of the existing ICLS mechanism to support broadband-only loops and the voluntary path to model-based support should not be viewed as eliminating the role of the states in advancing universal service; far from it. The deployment and maintenance of a modern voice and broadband-capable network in rural and high-cost areas across this nation is a massive undertaking, and the continued efforts of the states to help advance that objective is necessary to advance our shared goals.

9. Administrative Issues

185. It is our desire to implement these revisions to our rules as soon as possible. We recognize, however, that implementing some of these changes will require new or revised information collections requiring approval from the Office of Management and Budget pursuant to the Paperwork Reduction Act. Further, some of the changes we adopt must be coordinated with the Commission’s existing cost accounting and tariffing rules. Given the administrative requirements we have noted, we do not anticipate that full implementation of the new Connect America Fund Broadband Loop Support and related changes will occur prior to October 1, 2016.⁴¹³

186. *USAC Oversight.* USAC, working with the Bureau, will take all actions necessary to implement these rule changes adopted in this Order. We note that USAC has a right to obtain – at any time and in unaltered format – all cost and revenue submissions and related information provided by carriers to NECA that is used to calculate payments under any high-cost support mechanism.⁴¹⁴ We expect USAC to implement processes to validate any calculations performed by NECA to ensure that accurate amounts are disbursed, consistent with our decisions.

⁴⁰⁹ *Connect America Fund Fifth Order on Reconsideration*, 27 FCC Rcd at 14557, para. 21.

⁴¹⁰ *In re FCC 11-161*, 753 F.3d at 1058-60.

⁴¹¹ 47 U.S.C. § 220(c).

⁴¹² See 47 U.S.C. § 254(b)(5) (“There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.” (emphasis added)); *Qwest Corp. v. FCC*, 258 F.3d 1191, 1203 (10th Cir. 2001) (the Telecommunications Act “plainly contemplates a partnership between the federal and state governments to support universal service”); *USF/ICC Transformation Order*, 26 FCC Rcd at 17705, para. 109, 17848-49, para. 568.

⁴¹³ We delegate authority to the Bureau to take all necessary administrative steps to implement the reforms adopted in this Order.

⁴¹⁴ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17867, para. 633. At that time, the Commission indicated that it was modifying its rules to clarify that USAC had a right to obtain all such information from NECA, but it did not include any such language in the Code of Federal Regulations. We now codify this requirement in our existing rule, section 54.707 Audit controls.

187. *Administrative Schedule – In general.* The administration of the CAF-BLS mechanism will, as much as possible, follow the existing precedent of the ICLS mechanism.⁴¹⁵ Accordingly, we specify the following schedule:

March 31	Carriers file with USAC projected cost and revenue data, including projected voice and broadband-only loops, necessary to calculate a provisional CAF-BLS amount for each carrier for the following July 1 to June 30 tariff year (ex. on March 31, 2017, carriers will file projected data for July 1, 2017, to June 30, 2018). ⁴¹⁶
May 1	USAC files with the Commission in Docket No. 10-90 provisional CAF-BLS amounts, having applied the budgetary control based on CAF BLS data filed on March 31, as well previously known HCLS data and CAF-BLS true-up information
June 16	Tariffs filed by this date may be deemed lawful for the following July 1 to June 30 tariff year (ex. on June 16, 2017, NECA files tariffs for July 1, 2017, to June 30, 2018, relying on May 1 CAF-BLS amounts)
July 1 to June 30	USAC disburses provisional CAF-BLS amounts to carriers (July 1, 2017 to June 30, 2018, in this example)
December 31	Carriers file actual cost and revenue data and line count data necessary to calculate final CAF-BLS for prior calendar year (ex. on December 31, 2018, carriers file data for January 1, 2017, to December 31, 2017).
July 1 to June 30	USAC disburses true-ups for final CAF-BLS amounts to carriers (ex. true-ups associated with calendar year 2017 disbursed from July 1, 2019, to June 30, 2020). ⁴¹⁷

C. Pricing considerations

188. In the following subsections, we address cost allocation and tariff-related issues raised by adoption of the new CAF ACAM and CAF BLS mechanisms discussed above. The implementation of those support programs and the cost allocation and pricing issues addressed below will be coordinated so that the appropriate cost allocation and tariff revisions will occur when the new mechanisms become effective.

1. Cost allocation issues

189. Today, broadband-only loops are generally offered through interstate special access tariffs. The costs associated with those loops are allocated 100 percent to the interstate jurisdiction by the separations procedures in Part 36⁴¹⁸ and then to the special access category by subparts D and E of Part 69.⁴¹⁹ Under this process, the interstate broadband-only loop costs are included in the special access revenue requirement upon which cost-based special access rates are determined. When the new high-cost

⁴¹⁵ In order to facilitate the operation of the CAF-BLS mechanism, we eliminate the June 30 updates and revisions that had been permitted pursuant to ICLS.

⁴¹⁶ Carriers may use NECA as a filing agent for CAF BLS, much as many currently do for their ICLS filings with USAC.

⁴¹⁷ To ensure a consistent effect on the budgetary constraint through the year, we modify the true-up process conducted under ICLS so that under CAF BLS such that true-ups are spread between July 1 to June 30 of each tariff year, rather than applying the true-ups to the third and fourth quarters of the calendar year, as is currently done.

⁴¹⁸ See generally 47 CFR pt. 36.

⁴¹⁹ See generally 47 CFR pt. 69, subpts. D-E.

support rules take effect, a carrier may receive support for a portion of its broadband-only loop costs. Unless an adjustment is made, a carrier could recover the costs associated with the broadband-only loop twice—once through the CAF BLS mechanism and a second time through special access rates based on the existing special access revenue requirement.

190. To avoid this situation, we amend Part 69 in two ways to implement the goal articulated in the *April 2014 Connect America Fund FNPRM* of ensuring that no double recovery occurs.⁴²⁰ First, we create a new service category known as the “Consumer Broadband-Only Loop” category for the broadband-only loop costs that are the subject of this Order. This new category in Part 69 will encompass the costs of the consumer broadband-only loop facilities that today are recovered through special access rates for the transmission associated with wireline broadband Internet access service.⁴²¹ This category will be included along with the common line category in the new CAF BLS mechanism.

191. Second, we revise Part 69 of our rules to reallocate costs to avoid double recovery. These revisions require a carrier to move the costs of consumer broadband-only loops from the special access category to the new Consumer Broadband-Only Loop category. Today, the facilities associated with the common line and the consumer broadband loop run between the end-user premises and the central office, and are often the same technology or share some common transmission capacity. Thus, it is reasonable to conclude that the costs associated with these two types of lines are very similar. The interstate Common Line revenue requirement includes 25 percent of the total unseparated loop costs, while the consumer broadband-only loops will include 100 percent of the total unseparated loop costs. For purposes of deriving the amount of consumer broadband loop expenses to be removed from the Special Access category,⁴²² carriers will calculate common line investment and expenses using an interstate allocation of 100, rather than 25. The common line expenses produced by this calculation will then be divided by the number of voice and voice/data lines in the study area to derive the interstate common line expenses per line. The interstate common line expenses per line will be multiplied by the number of consumer broadband-only loops to derive the consumer broadband-only loop expenses to be removed from the Special Access category. We take this approach because it includes the broadest definition of loop costs feasible based on our current cost accounting rules.⁴²³ These actions will segregate the broadband-only loop investment and expenses from other special access costs currently included in the Special Access

⁴²⁰ See *April 2014 Connect America Fund FNPRM*, 29 FCC Rcd at 7137, para. 269; see also Letter from Michael R. Romano, Senior Vice President—Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., at 1-2 (filed Nov. 24, 2015); Letter from Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., at 1 (filed Nov. 5, 2015).

⁴²¹ For purposes of this discussion, wireline broadband Internet access service refers to a mass-market retail service by wire that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This retail service offered by rate-of-return carriers or their affiliates is subject to the reasonable comparability benchmark. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17695, 17708-09, paras. 86, 113-114. The wholesale input discussed in this Order – the transmission component used to provide the retail service – is subject to the Commission’s rate-of-return regulation, including the changes adopted herein, unless a carrier seeks to convert to price cap regulation. A carrier electing price cap regulation becomes subject to the rules governing price cap carrier rates and obligations, including the transition path and recovery rules applicable to price cap carrier switched access charges. See 47 CFR §§ 51.907, 51.905.

⁴²² This does not revise any rule associated with calculating the actual common line investment and expenses. It is solely for the purpose of establishing the amount of consumer broadband-only loop investment and expenses to remove from the special access category.

⁴²³ We recognize that networks will continue to evolve, and at some future date, the Commission may wish to revisit more broadly the technology assumptions underlying our existing accounting rules.

category⁴²⁴ and also preclude cross-subsidization. We will oversee NECA's actions to ensure that these changes are implemented consistent with the Commission's intent.

2. Tariffing issues

192. *Assessment of end-user charges.* Today, rate-of-return carriers assess SLCs on voice and voice/broadband lines. The SLCs are capped at the lower of cost or \$6.50 for residential and single-line business lines and \$9.20 for multiline business lines.⁴²⁵ Rate-of-return carriers will continue to offer voice and voice/broadband lines under the revised support mechanisms. Carriers will continue to be eligible to assess SLCs on end-user customers of voice and voice/broadband lines subject to the current rules. Carriers will also be permitted to assess an Access Recovery Charge (ARC) on any line that can be assessed a SLC, the same as today.⁴²⁶ Consistent with the existing rules, SLCs and ARCs may not be assessed on lines eligible to receive Lifeline support.⁴²⁷

193. Currently, a rate-of-return carrier may offer broadband-only loops through its interstate special access tariff. The consumer broadband-only loop service is the telecommunications input to a wireline broadband Internet access service. When the revised rules adopted herein become effective, a rate-of-return carrier may tariff a consumer broadband-only loop charge for the consumer broadband-only loop service. Alternatively, a carrier may detariff such a charge.⁴²⁸ The carrier may not, however, tariff the charge to some customers, while detariffing it for others.⁴²⁹ This limitation is designed to preclude a carrier from using this flexibility to discriminate among customers taking broadband-only services.

194. *Consumer broadband-only loop charge for a carrier electing model-based support.* A portion of the support a rate-of-return carrier electing model-based support receives will be to cover a portion of the costs of the consumer broadband-only loop. The broadband loop provides a connection between the end user's premises and the ISP—either an affiliated or nonaffiliated entity. The broadband-only loop is a wholesale input into the retail broadband service offered by the ISP. The cost of that loop is currently included in the Special Access category, but will be shifted to the new Consumer Broadband-Only Loop category by this Order. Support received under the model will not replace all the carrier's consumer broadband-only loop costs. Thus, the carrier may choose (but is not required) to develop a rate to recover the remainder of its costs to assess on either the end user or the ISP, depending on the pricing relationship established between the ISP and the consumer. Above, we found that \$42 per month per line represented a reasonable revenue amount that could be expected to be recovered through such a charge for a broadband-only loop.⁴³⁰ We will allow – but do not require – a rate-of-return carrier electing model-based support to assess a wholesale consumer broadband-only loop charge that does not exceed \$42 per

⁴²⁴ The costs remaining in the special access category include those related to business services, such as DS1 and DS3 other wide-band services, and the costs for digital subscriber line (DSL) service that could be tariffed.

⁴²⁵ 47 CFR § 69.104.

⁴²⁶ 47 CFR § 51.917(e).

⁴²⁷ 47 CFR §§ 69.104, 51.917.

⁴²⁸ If the rate-of-return carrier chooses to detariff its wholesale consumer broadband-only loop offering, it no longer will be voluntarily offering the transmission as a service that is assessable for contributions purposes. As such, it would not have a contributions obligation for that service, similar to other carriers that previously chose not to offer a separate tariffed broadband transmission service. *See Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, GN Docket No. 14-28, 30 FCC Rcd 5601, 5837, para. 491 (2015) (*Open Internet Order*), *pets. for review pending sub nom USTA v. FCC*, No. 15-1063 (D.C. Cir. filed May 22, 2015).

⁴²⁹ Whether the charge for the consumer broadband-only loop is tariffed or detariffed, the charge is only one of many different costs recovered by the retail broadband service rate. Because that service is not rate regulated, no carrier should in any way represent or create the impression that the broadband-only loop charge is mandated by the Commission.

⁴³⁰ *See supra* Section II.B.2

line per month.⁴³¹ This rate cap allows a carrier the opportunity to recover its costs not covered by the model, while limiting the ability of a carrier to engage in a price squeeze against a non-affiliated ISP offering retail broadband service. The retail service provided to the end user customer is not constrained by this limitation.⁴³²

195. *Participation in the NECA common line pool and tariff by carriers electing model-based support.* Some carriers that elect model-based support may currently participate in the NECA pooling and tariffing process for their common line offerings. Model-based support replaces the high-cost support (i.e. HCLS, ICLS) amounts a carrier would receive, as well as any CAF BLS associated with consumer broadband-only loops it would have been eligible to receive if it had not elected model-based support. Carriers electing model-based support will be treated as if they had received their full support amounts under traditional ratemaking procedures. As a result, the only revenue requirement remaining for the Common Line and Consumer Broadband-Only Loop categories are those amounts associated with end-user charges.⁴³³ For carriers electing model-based support, we see little benefit from pooling their common line or consumer broadband-only loop costs. In fact, it would likely increase the costs of administering the pooling process with no concurrent benefit for carriers. We accordingly conclude that carriers electing model-based support will not be eligible to participate in the NECA common line pooling mechanism.

196. We do find, however, that rate-of-return carriers electing model-based support could benefit from continued participation in the NECA tariffs. We accordingly decide to preserve the option for carriers to use NECA to tariff these charges. The charges shall be capped at current levels for existing charges, and at \$42 for the consumer broadband-only loop charge. This approach allows the carriers electing model-based support to benefit from the administrative efficiencies associated with participating in the NECA tariff.

197. *Ratemaking for carriers not electing model-based support.* Each carrier that does not elect model-based support will have an interstate revenue requirement for its Consumer Broadband-Only Loop category, as determined pursuant to the procedures set forth in Part 69. The projected Consumer Broadband-Only Loop revenue requirement is then reduced by the projected amount of CAF BLS attributed to that category in accordance with the procedures in Part 54 defining such amounts. The remaining projected revenue requirement is the basis for developing the rates the carrier may assess, based on projected loops.⁴³⁴ NECA shall employ comparable procedures in its pooling process.

198. A carrier may tariff different pricing models for the loop service, but it must select one model for a study area. A carrier in the NECA pool that elects to detariff its consumer broadband-only loop service must remove all of its Consumer Broadband-Only Loop category revenue requirement from the pooling process. It will retain the support that would have been applied to the Consumer Broadband-Only Loop category revenue requirement if it had not detariffed its consumer broadband-only loop rates, plus any revenue resulting from its detariffed rates.

⁴³¹ If a carrier chooses to assess a tariffed wholesale consumer broadband-only loop charge, the revenues for that transmission service are subject to a contribution obligation. See *Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, GN Docket No. 14-28, 30 FCC Rcd 5601, 5837, para. 491 (2015) (*Open Internet Order*), *pets. for review pending sub nom USTA v. FCC*, No. 15-1063 (D.C. Cir. filed May 22, 2015).

⁴³² Such retail service is, however, subject to the reasonable comparability benchmark. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17708, para. 113.

⁴³³ 47 CFR § 54.901(a)(1), (3)-(5).

⁴³⁴ A carrier may not deaverage this rate within a study area. See 47 CFR § 69.3(e)(7).

D. CAF-ICC Considerations

199. *Background.* In the *USF/ICC Transformation Order*, the Commission adopted, among other things, rules requiring rate-of-return carriers to transition many of their legacy ICC rates to a bill-and-keep regime.⁴³⁵ The Commission also adopted a recovery mechanism to mitigate the impact of reduced ICC revenues on carriers and to facilitate continued investment in broadband infrastructure while providing greater certainty and predictability going forward.⁴³⁶ The recovery mechanism allows rate-of-return LECs to recover each year an amount known as “Eligible Recovery.”

200. The calculation of a rate-of-return LEC’s Eligible Recovery begins with its Base Period Revenue (BPR).⁴³⁷ The BPR is the sum of certain ICC intrastate switched access revenues and net reciprocal compensation revenues received by March 31, 2012, for services provided during FY 2011,⁴³⁸ and the projected revenue requirement for interstate switched access services provided during the 2011-2012 tariff period.⁴³⁹ The BPR for rate-of-return carriers was reduced by 5 percent initially and is reduced by an additional 5 percent in each year of the transition.⁴⁴⁰ A rate-of-return LEC’s Eligible Recovery is equal to the adjusted BPR for the year in question less the sum of (1) projected intrastate switched access revenue; (2) projected interstate switched access revenue; and (3) projected net reciprocal compensation revenue.⁴⁴¹

201. A carrier may first recover its Eligible Recovery through the Access Recovery Charge (ARC) assessed on end users, subject to certain limits.⁴⁴² If the projected ARC revenues do not recover the entire Eligible Recovery amount, the carrier may elect to collect the remainder through universal service support in the form of CAF ICC.⁴⁴³ The recovery mechanism is limited in time and carefully balances the benefits of certainty and a gradual transition with our goal of keeping the federal universal service fund on a budget and minimizing the overall burden on end users.⁴⁴⁴

202. *Discussion.* The Eligible Recovery mechanism adopted in the *USF/ICC Transformation Order* was a carefully balanced approach.⁴⁴⁵ The plan to provide support for certain broadband lines adopted here will alter the balance struck in the *USF/ICC Transformation Order* in two significant ways, and CAF ICC support could increase in a manner not contemplated. As discussed below, we revise our recovery rules to account for the support changes adopted in this Order.

203. The first effect from providing support to consumer broadband-only loops is a likely migration of some end users from their current voice/broadband offerings to supported broadband-only

⁴³⁵ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17934-35, para. 801 & Fig. 9.

⁴³⁶ See *id.* at 17677, para. 36.

⁴³⁷ See 47 CFR § 51.917(d).

⁴³⁸ For purposes of the recovery mechanism, Fiscal Year 2011 (FY 2011) is defined as October 1, 2010 to September 30, 2011. See 47 CFR § 51.903(e).

⁴³⁹ See 47 CFR § 51.917(b)(7). The 2011-2012 tariff period was July 1, 2011, through June 30, 2012.

⁴⁴⁰ See 47 CFR § 51.917(b)(3).

⁴⁴¹ 47 CFR § 51.917(d). Beginning in 2014, the recovery mechanism also incorporates in the Eligible Recovery calculation a true-up of the revenue difference between projected and actual demand for interstate and intrastate switched access services, reciprocal compensation, and the ARC for the tariff period that began two years earlier. See 47 CFR § 51.917(d)(1)(iii).

⁴⁴² 47 CFR § 51.917(e)-(f). If a carrier decided not to assess an ARC charge on end users, it must impute those ARC amounts for purposes of determining any CAF ICC. *Id.*

⁴⁴³ *Id.* See also *USF/ICC Transformation Order*, 26 FCC Rcd at 17981, para. 896.

⁴⁴⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17956, para. 847.

⁴⁴⁵ See *id.* at 17957-64, paras. 850-61.

lines due to increased affordability of these services. Although we cannot predict the extent of this migration, such changes will reduce the number of ARC-eligible lines under the current rules and thus the amount of Eligible Recovery that the carrier can recover via ARC charges. As explained above, recovery from CAF ICC will be provided to the extent carriers Eligible Recovery exceeds their permitted ARCs. Thus, under the existing recovery rules, a migration of end users to consumer broadband-only loop service would upset the careful balancing of burdens as between end-user ARC charges and universal service support, i.e., CAF ICC. It is not our intent to alter significantly the balance struck in the *USF/ICC Transformation Order*. To insure that our actions today do not unintentionally increase CAF ICC support, we require that rate-of-return carriers impute an amount equal to the ARC charge they assess on voice/broadband lines to their supported consumer broadband-only lines.⁴⁴⁶

204. The second effect that will occur from the adoption of support for consumer broadband-only loops is that, as voice/broadband lines are lost, a carrier's switched access revenue will go down. Absent Commission action, the recovery mechanism would produce a higher Eligible Recovery for the carrier and a higher CAF ICC amount. Nevertheless, the likelihood exists that some of the facilities used to support the lost switched access services will be reused to provide a portion of the broadband-only service. This is especially true with respect to transport and circuit equipment, although it could include other facilities as well. Thus, in some cases, the carrier would be receiving some special access revenue recovering the costs of facilities formerly used to provide switched access services. Such circumstances would result in double recovery under the rules adopted in the *USF/ICC Transformation Order* because the carrier would receive CAF ICC as well as special access revenues for the service being offered—either tariffed or detariffed. We accordingly clarify that a carrier must reflect any revenues recovered for use of the facilities previously used to provide the supported service as double recovery in its Tariff Review Plans filed with the Commission, which will reduce the amount of CAF ICC it will receive. This minimizes the effect today's decision will have on the level of CAF-ICC support. The reporting of any double recovery will be covered by the certifications carriers must file with the Commission, state commissions, and USAC as part of their Tariff Review Plans.

E. ETC Reporting Requirements

205. In light of our experience in implementing our high-cost reporting requirements to date and our desire to respond to the recommendation of the Government Accountability Office to improve the accountability and transparency of high-cost funding,⁴⁴⁷ we now make several changes to our reporting rules. In this section, we streamline and revise rate-of-return ETCs' annual reporting requirements to better align those requirements with our statutory and regulatory objectives. First, we amend our rules to require rate-of-return ETCs to provide additional detail regarding their broadband deployment during each year, as suggested by several parties. Specifically, we now require all rate-of-return ETCs to provide location and speed information of newly served locations. We also require rate-of-return ETCs electing model-based support to provide information for the locations already served at the time of election. In conjunction with these changes, we eliminate the requirement that rate-of-return ETCs file a five-year plan and annual progress reports on that plan. The net result of these two changes will be more targeted, useful information for the Commission, states, Tribal governments and the general public. Second, given the reporting rules we adopt today for rate-of-return carriers, for administrative efficiency, we make conforming changes to the reporting rules for carriers that elected Phase II model-based support (hereinafter "price cap carriers"). Third, we direct USAC to publish in open, electronic formats all non-confidential information submitted by recipients of high-cost support. We conclude that these changes ensure that our reporting requirements continue to be tailored appropriately to meet our statutory and regulatory objectives.

⁴⁴⁶ The projected demand for this imputation will be subject to the same type of true-up as are the ARCs assessed on voice/broadband lines.

⁴⁴⁷ Government Accountability Office, *FCC Should Improve the Accountability and Transparency of High-Cost Program Funding* GAO 14-587 (July 2014), <http://www.gao.gov/assets/670/664939.pdf>.

1. Background

206. In the *USF/ICC Transformation Order*, the Commission adopted several reforms to harmonize and update annual ETC requirements by establishing a “uniform national framework for accountability” that replaced the various data and certification filing deadlines that carriers were required to meet previously.⁴⁴⁸ The Commission concluded that such an accountability framework is “critical to ensure appropriate use of high-cost support and to allow the Commission to determine whether it is achieving its goals efficiently and effectively.”⁴⁴⁹ Specifically, the Commission extended reporting requirements for voice service to all ETCs and adopted new reporting requirements to reflect new broadband obligations,⁴⁵⁰ including a requirement that all ETCs subject to broadband public interest obligations file five-year service quality improvement plans and annual progress reports thereafter.⁴⁵¹

207. At that time, the Commission sought detailed comment on long term reform of rate-of-return ETCs’ obligations and associated reporting requirements. In the *USF/ICC Transformation FNPRM*, the Commission sought comment on deployment obligations for rate-of-return carriers, including “what specific metrics or build-out milestones should be established, and what reporting and certification obligations should be imposed to improve the Commission’s ability to enforce such commitments.”⁴⁵² Subsequently, in the *April 2014 Connect America FNPRM*, the Commission sought comment on revised broadband reporting requirements “for all CAF recipients that are required to offer broadband service as a condition of receiving high-cost support,” including rate-of-return carriers.⁴⁵³

208. In the *December 2014 Connect America Order*, the Commission adopted additional broadband reporting obligations for price cap ETCs. The Commission required price cap carriers accepting model-based support to report the geocoded locations to which they have deployed facilities capable of meeting the Commission’s requirements.⁴⁵⁴

2. Discussion

209. *Broadband Reporting Requirements.* We now update our annual reporting requirements for rate-of-return ETCs as a necessary component of our ongoing efforts to update the support mechanisms for such ETCs to reflect our dual objectives of supporting existing voice and broadband service, while extending broadband to those areas of the country where it is lacking. We conclude that the public interest will be served by adopting broadband location reporting requirements for rate-of-return carriers similar to those we adopted for price cap carriers and authorized bidders in the rural broadband

⁴⁴⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17850, para. 573; see also 47 CFR §§ 54.313, 54.314. Some of these reporting requirements also apply to ETCs only receiving Lifeline support. See 47 CFR § 54.422(b) (requiring ETCs that receive low income support to report outages, complaints, certify compliance with applicable service quality standards and service protection rules and certify to the ability to function in emergency situations).

⁴⁴⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17850, para. 573.

⁴⁵⁰ *Id.*, 26 FCC Rcd at 17852, para. 579.

⁴⁵¹ *Id.* at 17854, para. 587; see 47 CFR § 54.202(a)(1)(ii). Subsequently, the Bureau waived the requirement for price cap carriers to file five-year plans until after such carriers accept Connect America Phase II support. See *ETC Reporting Clarification Order*, 28 FCC Rcd at 2054, para. 8. The Commission also has waived the five-year plan requirement for authorized bidders in the rural broadband experiments. See *Connect American Fund Annual Reports and Certifications*, Report and Order and Notice of Proposed Rulemaking, 29 FCC Rcd 8769, 8795 at para. 77 (2014).

⁴⁵² *USF/ICC Transformation Order*, 26 FCC Rcd at 18050, para. 1043.

⁴⁵³ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7147, para. 310. Further, the Commission sought comment on how to reform its rules to provide support to rate-of-return ETCs based on the number of locations served. See *id.* at 7137, para. 269 (asking, “whether a [revised rate-of-return] mechanism should be designed [to provide] support based on locations....”).

⁴⁵⁴ See *December 2014 Connect America Order*, 29 FCC Rcd at 15688-89, para. 125; 47 CFR § 54.313(e).

experiments. This targeted rule change is critical for the Commission to determine if universal service funds are being used for their intended purposes.⁴⁵⁵ As recommended by the Government Accountability Office, such data will enable the Commission and USAC to analyze the data provided by carriers and determine how high-cost support is being used to “improve broadband availability, service quality, and capacity at the smallest geographic area possible.”⁴⁵⁶

210. Specifically, similar to the current requirements for price cap ETCs,⁴⁵⁷ we adopt a rule requiring all rate-of-return ETCs, starting in 2017, and on a recurring basis thereafter, to submit to USAC the geocoded locations to which they have newly deployed broadband.⁴⁵⁸ These data will provide an objective metric showing the extent to which rate-of-return ETCs are using funds to advance as well as preserve universal service in rural areas, demonstrating the extent to which they are upgrading existing networks to connect rural consumers to broadband. USTelecom, NTCA, WTA and ITTA propose that rate-of-return carriers submit the number of locations that are newly served in the prior year, with both USTelecom and ITTA explicitly proposing that ETCs electing CAF-ACAM support submit geocodes for such locations.⁴⁵⁹ Rate-of-return ETCs will also be required to report the number of locations at the minimum speeds required by our rules.⁴⁶⁰ The location and speed data will be used to determine compliance with the associated deployment obligations we adopt today.⁴⁶¹ The geocoded location information should reflect those locations that are broadband-enabled where the company is prepared to offer service meeting the Commission’s minimum requirements for high-cost recipients subject to broadband public interest obligations, within ten business days.

211. We expect ETCs to report the information on a rolling basis. A best practice would be to submit the information no later than 30 days after service is initially offered to locations in satisfaction of their deployment obligations, to avoid any potential issues with submitting large amounts of information at year end. We conclude that the submission of information in near real-time as construction is completed will be beneficial to all carriers and particularly useful to smaller carriers. For instance, ETC technicians will be able to upload the location information as part of the routine process of updating its customer service availability database upon completion of construction or in conjunction with initiation of

⁴⁵⁵ As noted above, in the *April 2014 Connect America Order and FNRPM*, the Commission requested comment on transitioning all rate-of-return funding to support broadband capable networks and reporting obligations for rate-of-return ETC subject to deployment obligations. *See supra* para. 160.

⁴⁵⁶ Government Accountability Office, *FCC Should Improve the Accountability and Transparency of High-Cost Program Funding*, GAO 14-587 (July 2014), <http://www.gao.gov/assets/670/664939.pdf>.

⁴⁵⁷ *See* 47 CFR § 54.313(e).

⁴⁵⁸ *See* Appendix B.

⁴⁵⁹ *See* Letter of Genevieve Morelli, President, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at attach., at 25 (filed Dec. 4, 2015) (on behalf of USTelecom and ITTA) (proposing draft rules that include a geocoding requirement for rate-of-return ETCs electing CAF-ROR support); Letter of Michael R. Romano, Senior Vice President – Policy, NTCA to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at 2 (filed Dec. 16, 2015) (on behalf of NTCA, USTelecom and ITTA) (Joint Association Dec. 16 Letter) (proposing location reporting requirements for ETCs receiving support under the reformed rate-of-return mechanisms).

⁴⁶⁰ *See* Letter of Michael R. Romano, Senior Vice President – Policy, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 at 2 (filed Oct. 26, 2015) (on behalf of NTCA and WTA) (urging Commission to require that ETCs report the number of newly served locations with 10/1 and with 25/3 or then applicable section 706 standard); *see also* Joint Association Dec. 16 Letter at 2 (discussing NTCA, USTelecom, and WTA support for tiered speed deployment obligations upon “reasonable request” and associated reporting obligations). If the ETC is unable to meet the current minimum requirements to a particular location upon reasonable request, it would report the locations served at a lower level of service. *See supra* paras. 156-180 (discussing broadband deployment and reasonable request standard for rate of return carriers).

⁴⁶¹ *See supra* paras. 156-180.

marketing efforts for the newly available service, instead of having to record the location and transferring all of that information to an annual report six to 18 months later. It should also minimize the strain on USAC's information technology systems to avoid a massive amount of bulk uploads centered on a single, annual deadline. We note that the amount of information to be uploaded at the end of the calendar year is likely to be relatively low, as December is not construction season in many locales. While rate-of-return ETCs will have until March 1 to file their location data for the prior calendar year, reporting on a rolling basis before then will allow filers to receive real-time validation from USAC's system prior to the deadline and thereby provide the opportunity to timely correct any errors or avoid delays due to system overload.⁴⁶²

212. We find that the benefits in collecting this location-specific broadband deployment information outweigh any potential burdens from reporting this data, particularly because rate-of-return ETCs already collect location information for other purposes. Rate-of-return carriers presumably maintain records of addresses that are newly enabled with service, so that they can begin to market such service to those customers.⁴⁶³ Moreover, rate-of-return carriers already are required under our existing rules to maintain records for assets placed in service indicating the description, location, date of placement, and the essential details of construction.⁴⁶⁴ Thus, both for marketing and regulatory purposes, rate-of-return carriers already are tracking where they extend fiber and install other facilities, and should be able to determine through commonly accepted engineering standards which locations should be able to receive service at specified speeds.⁴⁶⁵

213. Similar to the regime adopted for the price cap carriers that elected Phase II model-based support, companies that elect model-based support will include in their total location count any locations that already have broadband meeting the Commission's minimum standards. While we encourage carriers to submit geocoded location information for their existing broadband locations no later than the deadline for the 2017 reporting, we recognize the possibility that some smaller companies may not already have complete lists of geocoded locations for their existing broadband infrastructure that was deployed under the legacy rules. Accordingly, while carriers electing the A-CAM model support are strongly urged to report new construction on a rolling basis starting in 2017, we will provide an additional year for them to file geocodes for pre-existing broadband-capable locations, with such information required to be submitted to USAC no later than March 1, 2019. Two years should be enough time for

⁴⁶² As we explained in a similar context, we will not find good cause to waive the March 1 deadline due to administrative or clerical oversight. *See December 2014 Connect America Order*, 26 FCC Rcd at 15693, para. 138.

⁴⁶³ We note that tools for geocoding locations are widely available. For example, the following free tool permits users to input a postal address and receive back exact latitude and longitude coordinates. *See, e.g.*, GPS Visualizer, GPS Visualizer's Quick Geocoder, <http://www.gpsvisualizer.com/geocode> (<http://www.gpsvisualizer.com/geocode>) (last visited Dec. 7, 2015). Similar capabilities are available on free smartphone apps. *See, e.g.*, Google Play, Geocode by Address, <https://play.google.com/store/apps/details?id=addressgeocode.tst> (<https://play.google.com/store/apps/details?id=addressgeocode.tst>) (last visited Dec. 7, 2015).

⁴⁶⁴ 47 CFR § 32.2000(f)(2)(iii). *See also* 47 CFR § 32.2000(f)(5) (requiring carriers to maintain continuing property records with "the specific location of the property . . . in such matter that it can be readily spot-checked for proof of physical existence.").

⁴⁶⁵ Rate-of-return carriers already are required to report the availability of broadband in a given census block pursuant to the FCC Form 477 data collection. We recognize that some providers have a number of customers that do not have postal addresses that easily can be geocoded with readily available applications. *See, e.g.*, Comments of Smith Bagley Inc., WC Docket No. 10-90 et al., at 28-20 (filed Apr. 31, 2015) (noting that many Tribal lands residences lack postal addresses). We direct the Bureau to work with USAC to develop a means of accepting alternative information in those instances where a postal code or other standardized means of geocoding is not readily available. Furthermore, we delegate authority to the Bureau to act on individual requests for waiver of this requirement in those cases where the parties can demonstrate other unique circumstances that make compliance with the geocoding requirement for a subset of locations impracticable.

carriers to collect the necessary data on any pre-existing deployment, while providing the Commission and USAC the specific locations well in advance of the first interim deployment obligation with a defined target.

214. We conclude that it is necessary to establish a standardized and automated system to collect the volume of location level data on carrier progress in meeting deployment obligations. Below, we direct the Bureau to work with USAC to develop an online portal that will be available for rate-of-return carriers to submit location information on a rolling basis throughout the year.⁴⁶⁶

215. We also establish certifications to be filed with ETCs' location submission, to ensure ETCs' compliance with their public interest obligations. Each rate-of-return ETC electing CAF-ACAM support must certify that it met its 40 percent interim deployment obligation at the time it files its final location report for 2020, due no later than March 1, 2021, and file similar certifications annually thereafter. Rate-of-return ETCs remaining on embedded cost mechanisms must file a similar certification within 60 days of the deadline for meeting their defined deployment obligations, i.e. March 1, 2022 and March 1, 2027.⁴⁶⁷ To ensure the uniform enforcement of ETCs' reporting requirements, rate-of-return ETCs that fail to file their geolocation data and associated deployment certifications due by March 1 of each year in a timely manner will be subject to the same penalties that currently apply to ETCs for failure to file the information required by section 54.313 on July 1 of each year.⁴⁶⁸

216. In conjunction with adopting the location reporting requirements above to track rate-of-return ETCs' build-out progress, we now eliminate the requirement for rate-of-return ETCs to file a service quality improvement plan.⁴⁶⁹ The purpose of the five-year plan and annual updates was to ensure that "ETCs [] use their support in a manner consistent with achieving the universal availability of voice and broadband."⁴⁷⁰ With the reforms adopted in this order, rate-of-return ETCs are now subject to detailed broadband buildout obligations, which provide a more defined yardstick by which to measure their progress towards the universal availability of voice and broadband service in their areas. We therefore find that it is unnecessary for rate-of-return ETCs to file a five-year service quality improvement plan.⁴⁷¹ Moreover, we conclude that because there is no longer a requirement to file a service quality improvement plan, we also should eliminate the obligation in our rules for rate of return ETCs to file

⁴⁶⁶ We direct USAC, working with the Bureau, to prepare a plan for the efficient collection, analysis and access to this location data. The plan should be provided to the Bureau within two months of release of this Order and address the use of automated reminders for year-end submission due dates, standardized data elements to the extent possible, and the time frame necessary to implement an online portal.

⁴⁶⁷ The Bureau has delegated authority to adjust these deadlines as necessary to align the timing of the implementation of the various reforms.

⁴⁶⁸ See 47 CFR § 54.313(j) (imposing penalties on ETCs for failure to file information required by section 54.313 in a timely manner). The penalties for failure for rate-of-return ETCs to timely file necessary geolocation data and associated certifications will now be located in section 54.316(c). To the extent rate of return ETCs must continue to make certifications in their annual July 1 filing, the penalties in section 54.313(j) for failure to timely file that information will continue to apply.

⁴⁶⁹ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17854, para. 587; 47 CFR § 54.202(a)(1)(ii).

⁴⁷⁰ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17854, para. 587.

⁴⁷¹ As we explain elsewhere in this item, the Commission may modify rules without notice and comment for good cause shown. See *infra* paras. 224-225. Here, the rule we eliminate is unnecessary, as rate-of-return carriers have already filed their initial service improvement plans in 2013 and the rule was waived for price cap carriers pending implementation of Phase II.

updates on that plan under our authority to eliminate rules that are no longer applicable.⁴⁷² We also modify, on the same basis, other rules to remove references to the service quality improvement plan.⁴⁷³

217. Once we receive Paperwork Reduction Act approval for the revised requirement to report geocoded locations and the elimination of our progress reporting requirement, rate-of-return ETCs will no longer be required to file a progress report containing maps and a narrative explanation of “how much universal service support was received, and how it was used to improve service quality, coverage or capacity and an explanation regarding any network improvement targets that have not been met....at the wire center level or census block as appropriate.”⁴⁷⁴ We conclude that the geocoded location lists that each recipient will be required to submit on an annual basis will provide the Commission with more precisely targeted information to monitor the recipients’ progress towards meeting their public interest obligations, and at that point there will no longer be a need for recipients to file annual progress reports.

218. *Connect America Phase II Reporting Requirements.* Because USAC will develop a unified reporting portal for geocoded location information, we find good cause to make conforming changes to the relevant reporting requirements for those price cap ETCs that accepted Phase II model-based support. We find good cause to change the timing of the submission of geocoded location information without notice and comment to promote administrative efficiency for both carriers and USAC. Instead of reporting such information in their annual report, due July 1 for the prior calendar year, we conclude that it will serve the public interest for price cap carriers to report on deployment by a deadline that is close to the end of the calendar year, rather than six months later. This will enable USAC to perform validations of compliance with the interim and final deployment milestones more quickly than otherwise would be the case, and impose remedial measures as necessary. Moreover, this change will unify location reporting for all ETCs providing service to fixed locations, minimizing administrative costs to USAC and simplifying monitoring of progress by the Commission, USAC, states, other stakeholders, and the public.

219. Specifically, upon the relevant Paperwork Reduction Act approvals, price cap ETCs will be required to submit the requisite information to USAC no later than March 1 of each year, for locations newly enabled in the prior year.⁴⁷⁵ They will be free – and indeed, encouraged – to submit information on a rolling basis throughout the year, as soon as service is offered, so as to avoid filing all of their locations at the deadline.⁴⁷⁶ By filing locations in batches as construction is completed and service is offered, they will avoid any last minute problems with submitting large quantities of information and be able to receive confirmation prior to the deadline that information was received by USAC. As they do now, price cap carriers will continue to make annual certifications that they are meeting their public interest obligations, but will do so when submitting the information to USAC by this deadline, rather than in their annual reports. We make conforming edits to our rules by moving the certifications in section 54.313(e)(3)-

⁴⁷² See 47 CFR § 54.313(a)(1) (requirement to file a progress report); see also section 553(b)(3)(B) of the Administrative Procedure Act (APA) (permitting agencies to issue rule changes without notice and comment upon a finding that notice and associated procedures are “impracticable, unnecessary, or contrary to the public interest”).

⁴⁷³ See 47 CFR § 54.313(f)(2) (requiring rate of return carrier to file information as part of their service quality improvement plan progress reports).

⁴⁷⁴ 47 CFR § 54.313(a)(1).

⁴⁷⁵ Because these changes will not go into effect by the time the 2015 Form 481 is due on July 1, 2016, the form and content of that filing will remain unaffected.

⁴⁷⁶ For example, CenturyLink will have to deploy to almost 500,000 locations nationwide to meet its 40% deployment milestones in all its accepted states. See Federal and State Staff for the Federal-State Joint Board on Universal Service, *Universal Service Monitoring Report*, CC Docket No. 96-45, WC Docket Nos. 02-6, 02-60, 06-122, 10-90, 11-42, 13-184, 14-58 at A-10 (2015 *Universal Service Monitoring Report*) (rel. Dec. 22, 2015).

(e)(6) to new section 54.316.⁴⁷⁷ Additionally, price cap ETCs' geolocation data and associated deployment certifications will no longer be provided pursuant to the schedule in section 54.313. The penalties in section 54.313(j) for failure to timely file that information would not apply absent additional conforming modifications to our rules. Therefore, as is the case for rate-of-return ETCs, the penalties for price cap ETCs to fail to timely file geolocation data and associated deployment certifications will be located in new section 54.316(c).⁴⁷⁸

220. Finally, for the reasons explained above for rate-of-return ETCs, we eliminate the requirement for price cap ETCs to file a service quality improvement plan and to file annual updates, as well as make conforming changes to our rules.⁴⁷⁹

221. *Improving Access to High-Cost Program Data.* We direct USAC to timely publish through electronic means all non-confidential high-cost data in open, standardized, electronic formats, consistent with the principles of the Office of Management and Budget's Open Data Policy.⁴⁸⁰ In 2014, we directed USAC to publish non-confidential program information for the schools and libraries mechanism in an open and accessible format, and today's action extends that same directive to the high-cost program, which represented roughly 50 percent of the entire USF in 2015.⁴⁸¹ USAC must provide the public with the ability to easily view and download non-confidential high-cost information, including non-confidential information collected on the Form 481 and the geocoded location information adopted above, for both individual carriers and in aggregated form.⁴⁸² We direct USAC to develop a map that will enable the public to visualize service availability as it expands over time.

222. We direct the Bureau to work with USAC to put appropriate protections in place for ETCs to seek confidential treatment of limited subset of the information.⁴⁸³ Entities, such as states and Tribal governments, which already have access to confidentially filed information for ETCs' within their jurisdiction, will continue to have access to such information through the online database. We find that making such data publicly available will increase transparency and enable ETCs, the Commission and

⁴⁷⁷ 47 CFR § 54.313 (e)(3)-(e)(6). In light of our unification of reporting obligations, we delete the section of our rules regarding price cap ETCs' deployment obligations and certification of compliance (47 CFR § 54.313(e)(2)(i)), (e)(2)(iii), (e)(3)-(e)(6)), and we move price cap ETCs' existing geocoding and certification obligations to the new section 54.316, which now contains all ETCs' deployment and the majority of ETCs' public interest certification obligations.

⁴⁷⁸ To the extent price cap ETCs must continue to make certifications in their annual July 1 filing, the penalties in section 54.313(j) for failure to file that information in a timely manner will continue to apply.

⁴⁷⁹ See 47 CFR § 54.313(e)(2) (requiring price cap carriers to file information as part of their service quality improvement plan progress reports).

⁴⁸⁰ See Office of Management and Budget, Exec. Office of the President, M-13-13, Open Data Policy – Managing Information as an Asset (May 9, 2013), <https://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf> (last visited Dec. 14, 2015).

⁴⁸¹ See 2015 Universal Service Monitoring Report, Table 1.10, https://apps.fcc.gov/edocs_public/attachmatch/DOC-337019A1.pdf.

⁴⁸² The system should provide filers with confirmation that data has been accepted for filing and satisfies an initial data validation process (e.g., no missing digits, etc.).

⁴⁸³ Currently, ETCs may seek confidential treatment of information pursuant to section 0.459 of the Commission's rules. Additionally, privately held rate-of-return carriers may file the financial information required by section 54.313(f)(2) pursuant to a protective order. See *Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Protective Order, DA 16-296 (WCB 2016). We expect carriers would continue to be able to seek confidential treatment of certain information included in their Form 481s. We note, however, that while we will evaluate any request for confidentiality on the merits, at this time, we see no reason for geocoded lists of newly served locations to be confidential as carriers presumably are making service availability known to the general public in their marketing efforts.

other stakeholders to assess ETCs' progress in deploying broadband throughout their networks as well as compliance with our rules.⁴⁸⁴ Once these updated systems are operational, we anticipate that we would no longer require ETCs to submit duplicative information with the Commission through ECFS and with state commissions. Rather, all such information will be submitted to the Administrator, with federal and state regulators, and Tribal governments where applicable, having full access to such information. We seek comment on this proposal in the FNPRM below.

223. As ETCs comply with the new public interest and reporting requirements and broadband public interest obligations in this Order, we will continue to monitor their behavior and performance. Based on that experience, we may make additional modifications as necessary to our reporting requirements.

F. Rule Amendments

224. We take this opportunity to make several non-substantive rule amendments.⁴⁸⁵ We find that notice and comment is unnecessary for rule changes that reflect prior Commission decisions to eliminate several support mechanisms that inadvertently were not reflected in the Code of Federal Regulations (CFR). Similarly, we find notice and comment is not necessary for rule amendments to ensure consistency in terminology and cross references across various rules, to correct inadvertent failures to make conforming changes when prior rule amendments occurred, and to delete references to rules governing past time periods that no longer are applicable.

225. First, we remove section 54.301, Local switching support, from the CFR. The Commission eliminated local switching support (LSS) as a support mechanism in the *USF/ICC Transformation Order*, but did not remove the LSS rule at that time. Second, we remove the first sentence of section 54.305(a), Sale or transfer of exchanges, as it pertains to prior time periods and refers to a rule, section 54.311, which no longer exists in the CFR. Third, we modify two provisions of section 54.313(a) requiring ETCs to submit a letter certifying that its pricing is in compliance with our rules.⁴⁸⁶ We conclude that a requirement for an ETC to certify its compliance with a rule is substantially similar to the requirement to provide a certification letter and the current letter requirements may impose a burden without a material benefit.⁴⁸⁷ Fourth, we correct the language regarding the existing certification requirement in section 54.313(f)(1) to reflect the Commission's decision in the *December 2014 Connect America Order* to require rate-of-return carriers to offer at least 10/1 Mbps upon reasonable request.⁴⁸⁸

⁴⁸⁴ We note that the Commission has established a similar tool for E-rate data pursuant to the E-Rate Second Report and Order. See *Modernizing the E-Rate Program for Schools and Libraries, et al.*, WC Docket No. 13-184 et al., 29 FCC Rcd 15538, 15590 para. 128 (2014) (E-Rate Second Report and Order); USAC, Funding Request Data Retrieval Tool, <http://www.slforms.universalservice.org/DRT/Default.aspx> (last visited Mar. 29, 2016).

⁴⁸⁵ Section 553(b)(3)(B) of the APA permits agencies to issue rule changes without notice and comment upon a finding that notice and associated procedures are "impracticable, unnecessary, or contrary to the public interest." See 5 U.S.C. § 553(b)(3)(B). Elsewhere in this Report and Order, we have noted other non-substantive rule amendments made under the good cause exception, in conjunction with discussions of other rule changes.

⁴⁸⁶ See 47 CFR § 54.313(a)(10) (ETC letter certifying that the pricing of the company's voice services is no more than two standard deviations above the applicable national average urban rate for voice service); 47 CFR § 54.313(f)(2) (ETC letter certifying that it is taking reasonable steps to provide broadband service at Commission standards).

⁴⁸⁷ In addition to our authority to make this change under section 553(b)(3)(B) of the APA, we also note that the Bureau was delegated the authority to determine the "form in which [ETCs] must report" the information in the annual reports. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17583, para. 584.

⁴⁸⁸ See *December 2014 Connect America Order*, 29 FCC Rcd at 15737-38, para. 76 ("Rate-of-return carriers [are] required to offer at least 10/1 Mbps broadband service upon reasonable request," and "if a request for 10/1 Mbps is not reasonable in a given circumstance, but offering 4/1 Mbps is reasonable" then the rate-of-return carrier must offer 4/1 Mbps"); 47 CFR § 54.313(f)(1).

Fifth, we delete paragraph 54.313(e)(2)(i) and modify language in paragraph 54.313(f)(1)(iii) of our rules because the language is duplicative of language in other parts of section 54.313.⁴⁸⁹ Sixth, as discussed above, in light of our changes to our location reporting rules and our decision to no longer require ETCs to file service quality improvement plans, we delete references in our rules to the filing of progress reports for those plans, delete our existing rule regarding price cap ETCs' obligation to report geocoded locations and the rule requiring certification of compliance with such ETCs' deployment obligations and move those requirements to new section 54.316.⁴⁹⁰ Seventh, we delete subpart J of Part 54; the Commission eliminated the Interstate Access Support (IAS) support mechanism for price cap carriers in the *USF/ICC Transformation Order*, but did not at that time delete the associated IAS rules from the CFR. Eighth, we eliminate section 54.904, the ICLS certification requirement, to reflect the Commission's decision in the *USF/ICC Transformation Order* to eliminate that rule and instead impose annual reporting requirements in section 54.313.⁴⁹¹ Ninth, we amend section 54.707 Audit controls so that it reflects accurate cross references to rules that currently are in existence and applicable.⁴⁹² We rename the existing rule, section 54.707, as subsection (a) and add new subsections (b) and (c) to reflect rules that were adopted by the Commission in the *USF/ICC Transformation Order*, but inadvertently not codified.⁴⁹³ Tenth, we amend sections 69.104(n)(ii) and 69.415(a)-(c) to remove language that is no longer applicable. Eleventh, we amend section 69.603(g), Association functions, to remove references to support mechanisms that no

⁴⁸⁹ Compare 47 CFR § 54.313(e)(3)(i) (requiring a "certification that it is meeting interim deployment milestones") with 47 CFR § 54.313(e)(4)-(6) (each requiring a certification that each interim deployment milestone was met); compare 47 CFR 54.313(f)(1)(iii) (requiring specific information from a "rate-of-return recipient[]" of high cost support) with 54.313(f) (requiring information from any "rate-of-return carrier.").

⁴⁹⁰ See *supra* paras. 216-220. Moreover, because price cap ETCs' deployment and associated certification requirements have moved from section 54.313 and are now located in section 54.316, the penalties for failure to comply with the requirement to file that information, currently in section 54.313(j), are now located in section 54.316(c). Because price cap and rate of return ETCs must still make certifications pursuant to section 54.313, the rule in 54.313(j) imposing penalties for failure to file that information remains unchanged. See Appendix B (preserving various requirements in section 54.313).

⁴⁹¹ The Commission stated in the *USF/ICC Transformation Order* that it was maintaining the ICLS certification for the July 2012 filing and eliminating the rule starting in July 2013, but it failed to remove the codified rule. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17862, para. 614.

⁴⁹² The codified rule currently refers to Part 36. In the *April 2014 Connect America Fund Order*, the Commission moved the rules governing the high-cost loop support mechanism from Part 36 into a new subpart M in Part 54. The codified rule also was not updated at the time of the *USF/ICC Transformation Order* to reflect the addition of subpart L to Part 54, for the Mobility Fund. The codified rule also refers to sections 69.116 through 69.117; those rules no longer are in the Code of Federal Regulations. The codified rule also erroneously specifies that reimbursements shall not be provided to a carrier in the rural health care mechanism until the carrier provides proof of its ETC designation to the Administrator. A carrier is not required to obtain an ETC designation in order to participate in or receive support under the rural health care mechanism. See 47 CFR Part 54, Subpart G; 47 CFR § 54.640.

⁴⁹³ In the *USF/ICC Transformation Order*, the Commission stated that it was modifying its rules to clarify that USAC has a right to obtain, at any time, all cost and revenues submissions that carriers submit to NECA that are used to calculate payments under any of the existing and any new programs; the Commission at the time failed to codify that rule. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17867, para. 633. The Commission also stated that it was modifying its rules to ensure that the Commission has timely access to data; it stated that USAC and NECA are required to provide to the Commission upon request all underlying data used to calculate payments under the existing mechanisms and Connect America Fund payments; again, the Commission failed to codify that requirement. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17867, para. 634.

longer exist or functions that NECA no longer performs, and to update terminology to reflect terms now used in Part 54.⁴⁹⁴

III. ORDER AND ORDER ON RECONSIDERATION

226. As part of our modernization of the framework for rate-of-return support, we also represcribe the currently authorized rate of return from 11.25 percent to 9.75 percent in all situations where a Commission-prescribed rate of return is used for incumbent LECs.⁴⁹⁵ The rate of return is a key input in a rate-of-return incumbent LEC's revenue requirement calculation, which is the basis for both its common line and special access rates and its universal service support. This action is a critical piece of our reform of the rate-of-return support mechanisms. A rate of return higher than necessary to attract capital to investment results in excessive profit for rate-of-return carriers and unreasonably high prices for consumers. It also inefficiently distorts carrier operations, resulting in waste in the sense that, but for these distortions, more services, including broadband services, would be provided at the same cost.

227. It is important that we take such comprehensive action to ensure the prescribed rate of return is commensurate with the investment risks incumbent LECs are undertaking today, such as broadband network investments, and at the same time reflects current market conditions. Our adoption today of self-effectuating measures to ensure that high-cost support remains within the budget established by the Commission in no way lessens the rationale for represcribing the authorized rate of return. Our adopted rate of return will provide rate-of-return carriers with economically efficient incentives to deploy broadband to meet the needs of their customers. An unnecessarily high rate of return inefficiently allocates funds away from carriers with relatively low capital to other expense ratios toward those with higher ratios. Moreover, an excessive rate of return inefficiently distorts individual rate-of-return carriers' investment and other decisions, reducing what can be achieved with available universal service resources. While an excessive rate of return might provide a minimally stronger incentive for rate-of-return carriers to extend broadband network deployment, this would only be so for marginal projects, which would likely be a minority of all potential projects. As a general matter, deployment decisions are not sensitive to small changes in profitability. In any case, we conclude that it is preferable to achieve our deployment objectives directly and transparently through the adoption of defined mandates and appropriate targeting of subsidies, rather than in a concealed manner by maintaining an inefficiently high rate of return, which creates distortions and also creates other unintended and difficult to predict consequences. In addition to ensuring responsible stewardship of finite universal service funds, our action here will also reduce certain rates for customers in rural areas.

228. As described in detail below, the represcribed rate of return will apply in all situations where a Commission-prescribed rate of return is used. The rate of return is used to calculate interstate common line rates, consumer broadband-only loop rates, as discussed elsewhere in this Order, and business data service (i.e. special access) rates and some forms of universal service support. Accordingly, the new 9.75 percent rate of return will be used to calculate common line rates, special access rates and

⁴⁹⁴ "The Universal Service Fund" in the current section 69.603(g) of our rules refers to the support mechanism now known as high-cost loop support. The rule refers to the Lifeline Assistance; NECA has not played a role in Lifeline since the creation of USAC and implementation of the current Lifeline program after the 1996 Act. The codified rule refers to Long Term Support payments and Transitional Support payments; those payments no longer exist. The current rule also refers to Carrier Common Line revenues. The Carrier Common Line rate element was phased out in 2003, but not removed from the rules.

⁴⁹⁵ See 47 CFR § 65.1. Our actions here do not affect the cost of money input of 8.5% in the Connect America Cost Model (CAM v4.3) used to calculate support for price cap carriers. *CAM Inputs Order*, 29 FCC Rcd at 4011-12, para. 107; *ACA AFR Order*, 29 FCC Rcd at 14093, para. 4 (denying ACA application for review arguing that the Commission should select 7.72% instead of 8.5% for the cost of money in the CAM for price cap carriers).

universal service support for rate-of-return incumbent LECs where applicable.⁴⁹⁶ Relying primarily on the methodology and data contained in the Wireline Competition Bureau's *Staff Report*⁴⁹⁷ – with some minor corrections and adjustments in part to respond to issues raised in the record – the Commission now identifies a more robust zone of reasonableness between 7.12 to 9.75 percent. We then adopt a new rate of return at the top end of this range at 9.75 percent and a transition to this authorized rate of return.

A. Background

229. The Commission prescribes a unitary rate of return (commonly referred to as the “rate of return” or “authorized rate of return”) for the roughly 1100 incumbent LEC study areas subject to rate-of-return regulation.⁴⁹⁸ Under rate-of-return regulation, a carrier's rates are set at levels to give the carrier an opportunity to recover its operating costs plus an authorized rate of return on the regulated rate base (plant in service minus accumulated depreciation).⁴⁹⁹ The authorized rate of return is used to determine interstate common line rates and special access rates for rate-of-return incumbent LECs,⁵⁰⁰ and is also used in calculating some forms of universal service support, including HCLS⁵⁰¹ and ICLS.⁵⁰²

230. The currently authorized rate of return – 11.25 percent – was set in 1990.⁵⁰³ In the *USF/ICC Transformation NPRM* released February 9, 2011, the Commission proposed to fundamentally

⁴⁹⁶ In represcribing the rate of return here, we do not intend to affect the calculation of and recovery amounts associated with switched access rates that are currently capped or transitioning pursuant to the *USF/ICC Transformation Order*. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17934, para. 801 and Fig. 9.

⁴⁹⁷ *Staff Report*, 28 FCC Rcd 7123.

⁴⁹⁸ The Commission is required by section 201 of the Communications Act of 1934 to ensure that rates are “just and reasonable.” See 47 U.S.C. § 201(b). Section 205(a) of the Act authorizes the Commission, on an appropriate record, to prescribe just and reasonable charges of common carriers. See 47 U.S.C. § 205(a). The Commission in the past has applied the authorized rate of return to certain services offered by price cap incumbent LECs. For example, under the Commission's rules, incumbent LEC collocation rates are based on costs and these rates are not subject to price cap regulation. In its order concluding its investigation of physical collocation tariffs filed by incumbent LECs otherwise regulated under price caps, the Commission found that incumbent LECs that developed rates based on a rate of return higher than 11.25 had failed to justify use of that higher rate of return, and ordered those incumbent LECs to recalculate their rates based on a rate of return that did not exceed 11.25%. See *Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport*, CC Docket No. 97-208, Second Report and Order, 12 FCC Rcd 18730, 18765-67, paras. 71-76 (1997).

⁴⁹⁹ See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd at 4564, para. 21 n.23 (2011) (*USF/ICC Transformation NPRM*).

⁵⁰⁰ In the *USF/ICC Transformation Order*, the Commission took rate-of-return incumbent LECs off of rate-of-return regulation for interstate switched access services. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17983-84, para. 900.

⁵⁰¹ See 47 CFR § 54.1308(a)(1).

⁵⁰² See 47 CFR § 54.901.

⁵⁰³ *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 17869-70, paras. 639-40. The Commission reduced the authorized rate of return from 12% to 11.25% in 1990. See *Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 89-624, Order, 5 FCC Rcd 7507 (1990) (*1990 Represcription Order*). The Commission's rules require that the Commission issue a notice inquiring whether it should undertake a represcription if the monthly average yields on 10-year United States Treasury securities remain, for a consecutive six month period, at least 150 basis points above or below the average of the monthly average yields in effect for the consecutive six month period immediately prior to the effective date of the current prescription. See 47 CFR § 65.101. Subsequently in 1998, the Commission noted that the trigger was met and initiated a represcription proceeding, but the proceeding was terminated in the *MAG Order*, leaving the authorized rate of return unmodified. See *Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-*

(continued....)

reform and modernize the Commission's universal service and intercarrier compensation system to ensure that robust, affordable voice and broadband services are available to all Americans.⁵⁰⁴ As part of these comprehensive reforms, the Commission sought comment on whether it should initiate a proceeding to represcribe the authorized rate of return for rate-of-return carriers if it determined that such carriers should continue to receive high-cost support under a modified rate-of-return system.⁵⁰⁵ In response to the *USF/ICC Transformation NPRM*, State Members of the Federal-State Joint Board on Universal Service proposed a rate of return of 8.5 percent while rate-of-return carrier associations proposed a rate of return of 10 percent.⁵⁰⁶

231. In the subsequent *USF/ICC Transformation Order*, the Commission found that the trigger for a new prescription proceeding was satisfied, observing that the monthly average yields on 10-year U.S. Treasury securities for the previous six months were over 450 basis points below the monthly average yields in the six months immediately prior to the last prescription, satisfying the 150 basis points trigger in our rules.⁵⁰⁷ Accordingly, the Commission concluded it should represcribe the authorized interstate rate of return for rate-of-return carriers and initiated the represcription process. The Commission also found good cause to waive certain procedural requirements in the rules relating to rate represcriptions to streamline and modernize this process to align with current Commission practice.⁵⁰⁸ In the accompanying *USF/ICC Transformation FNPRM*, the Commission proposed that the interstate rate of return be adjusted to ensure that it more accurately reflects the true cost of capital and sought comment generally on the most appropriate methodology for calculating the cost of capital.⁵⁰⁹

232. The Commission's rules require that the rate of return be based upon its analysis of the cost of debt and equity, and the ratio of debt to equity, also known as the "capital structure." Specifically, the Commission's rules stipulate that the rate of return be determined by calculating the Weighted Average Cost of Capital (WACC) by summing the estimated cost of debt, cost of preferred stock, and cost of equity, each weighted by its proportion in the capital structure of the telephone companies taken as

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Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers, CC Docket No. 00-256, Second Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 19613, 19701, para. 208 (2001) (*MAG Order*).

⁵⁰⁴ See *USF/ICC Transformation NPRM*, 26 FCC Rcd at 4557, para. 1.

⁵⁰⁵ *Id.* at 4692, para. 56. In response, several parties, including the state members of the Federal-State Joint Board on Universal Service, suggested that the Commission should lower the authorized rate of return. See State Members *USF/ICC Transformation NPRM* Comments at 36-37 (8.5%); Letter from Walter B. McCormick, Jr., USTelecom, to Chairman Genachowski, Commissioner Copps, Commissioner McDowell, and Commissioner Clyburn, WC Docket No. 10-90, at 2 (filed Jul. 29, 2011) (10%). The Commission also sought comment more broadly on whether proposed changes, or any other potential changes to rate-of-return regulation, would adversely affect the ability of rate-of-return carriers to provide voice and broadband services. *Id.*

⁵⁰⁶ *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18051, para. 1046 (citing State Members *USF/ICC Transformation NPRM* Comments at 36-37 and Letter from Walter B. McCormick, Jr., USTelecom, to Chairman Genachowski, Commissioner Copps, Commissioner McDowell, and Commissioner Clyburn, WC Docket No. 10-90, at 2 (filed Jul. 29, 2011)).

⁵⁰⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870, para. 640 (citing 10-Year Treasury Constant Maturity Rate (GS10), Federal Reserve Bank of St. Louis, <http://research.stlouisfed.org/fred2/series/GS10>); see 47 CFR § 65.101 ("Whenever the Commission determines that the monthly average yields on ten (10) year United States Treasury securities remain, for a consecutive six (6) month period, at least 150 basis points above or below the average of the monthly average yields in effect for the consecutive six (6) month period immediately prior to the effective date of the current prescription, the Commission shall issue a notice inquiring whether a rate of return prescription according to this part should commence.").

⁵⁰⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17869-72, paras. 638-45.

⁵⁰⁹ *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18051-56, paras. 1044-60.

a whole.⁵¹⁰ Because there is a range of reasonable estimates for each of the elements of the WACC, in the past the Commission has identified a zone of reasonable WACC estimates and then decided, based on policy considerations, to prescribe the unitary rate of return within that “zone of reasonableness.”⁵¹¹

233. In the *USF/ICC Transformation FNPRM*, the Commission sought comment generally on the issues raised in the *1998 Prescription Notice*, when the Commission last initiated a prescription proceeding, such as the methods by which the Commission could determine the appropriate cost of capital.⁵¹² In particular, the Commission sought comment on the WACC, appropriate data and methodologies the Commission should use to calculate the WACC, capital structure, the surrogate or proxy group for which financial data is publicly available as a basis for calculating the cost of capital, the cost of debt, cost of preferred stock, cost of equity, and factors the Commission should consider in determining the rate of return from within a “zone of reasonableness.” The Commission also sought comment on how to account for Tribally-owned and operated carriers in this prescription, and whether a different rate of return is warranted for these carriers.⁵¹³

234. On May 16, 2013, Bureau staff released a *Staff Report* designed to assist the Commission as it considers prescribing a new authorized rate of return.⁵¹⁴ Taking into account comments filed in response to the *USF/ICC Transformation FNPRM*,⁵¹⁵ as well as regulatory and market changes since the Commission’s last represcription, that report analyzed various policies regarding represcription and possible procedural and substantive changes to the represcription process.⁵¹⁶ In the *Staff Report*, staff discussed analytical approaches to calculating the rate of return, with particular emphasis on calculating the cost of equity, and examined how best to establish a “zone of reasonableness.”⁵¹⁷ Based upon the staff analysis of 16 publicly-traded incumbent LECs, using various analytical methods and sources of publicly-available data, the *Staff Report* identified a zone of reasonable estimates of the WACC ranging from 7.39 percent to 8.72 percent, recommending a rate of return should be selected from upper end of this range between 8.06 and 8.72 percent.⁵¹⁸

235. Concurrently with the release of the *Staff Report*, the Bureau released a *Public Notice* on May 16, 2013 seeking comment on the data, analysis and recommendations contained in the *Staff Report* and asking parties to document the methodology, assumptions, data, and calculations of any alternative analyses.⁵¹⁹ The Bureau received 15 comments and 10 replies.⁵²⁰

⁵¹⁰ 47 CFR § 65.305(a).

⁵¹¹ *1990 Represcription Order*, 5 FCC Rcd at 7508, para. 7.

⁵¹² *USF/ICC Transformation Order*, 26 FCC Rcd at 18051-56, paras. 1044-60; *Prescribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 98-166, Notice Initiating a Prescription Proceeding and Notice of Proposed Rulemaking, 13 FCC Rcd 20561, 20563, para. 2 (1998) (*1998 Prescription Notice*).

⁵¹³ *USF/ICC Transformation Order*, 26 FCC Rcd at 18051-56, paras. 1044-60.

⁵¹⁴ *Staff Report*, 28 FCC Rcd 7123.

⁵¹⁵ See *id.* at 7127, para. 2; *USF/ICC Transformation Order*, 26 FCC Rcd at 18051-56, paras. 1044-60.

⁵¹⁶ *Staff Report*, 28 FCC Rcd at 7127-28, para. 2.

⁵¹⁷ *Id.* at 7146-67, paras. 51-114 (examining methodologies to calculate the cost of equity); *id.* at 7168-74, paras. 117-137 (establishing a zone of reasonableness).

⁵¹⁸ *Id.* at 7124, Exec. Summary. Commission rules require that the final determinations of the cost of debt, cost of equity, cost of preferred stock, and of their capital structure weights be accurate to two decimal places. 47 CFR § 65.306.

⁵¹⁹ *Wireline Competition Bureau Seeks Comment on Rate of Return Represcription Staff Report; Comment Cycle Established*, WC Docket No. 10-90 et al., Public Notice, 28 FCC Rcd 7120, 7121 (WCB 2013) (*Staff Report Public Notice*). Comments on the *Staff Report* were due on July 25, 2013; reply comments were due August 26, 2013. *Id.*

236. In addition, the Bureau initiated an external peer review process for the *Staff Report* pursuant to Office of Management and Budget peer review guidelines because the *Staff Report* provides the Commission with “highly influential scientific, financial, or statistical information.”⁵²¹ The Bureau received two peer review reports analyzing the *Staff Report*, one from Professor Robert Bowman and one from Doctors Robert Albon and Peter Gibbard who were selected based on their expertise, experience and skills in the field of economics.⁵²² The Bureau incorporated the results of that process into these dockets to provide notice to interested parties and an opportunity for comment on the peer review results.⁵²³ No comments were filed on the peer review reports.

B. Discussion

1. Procedural Issues

237. Section 205(a) of the Communications Act requires the Commission to give “full opportunity for hearing” before prescribing a rate including the authorized rate of return for rate-of-return carriers.⁵²⁴ However, as the Commission explained in the *USF/ICC Transformation Order*, a formal evidentiary hearing is not required under section 205,⁵²⁵ and the Commission has on multiple occasions prescribed individual rates in notice and comment rulemaking proceedings.⁵²⁶ In the *USF/ICC Transformation Order*, the Commission specified the process for a new rate of return prescription proceeding using notice and comment procedures, and on the Commission’s own motion, waived certain

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⁵²⁰ See App. F.

⁵²¹ *Staff Report Public Notice*, 28 FCC Rcd at 7121; FINAL INFORMATION QUALITY BULLETIN FOR PEER REVIEW, OFFICE OF MANAGEMENT AND BUDGET, EXECUTIVE OFFICE OF THE PRESIDENT, 70 Fed. Reg. 2664 (Jan. 14, 2005) (requiring that influential scientific information on which a federal agency relies in a rulemaking proceeding be subject to peer review to enhance the quality and credibility of the government’s scientific information).

⁵²² See Letter from Jamie Susskind, Legal Advisor to the Chief, Wireline Competition Bureau, FCC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. (filed May 1, 2014) (incorporating into the proceeding the peer review charge memoranda directing the peer reviewers to conduct their analysis and the peer review reports that were received by the Bureau) (May 1, 2013 FCC Letter); see Professor Robert G. Bowman, *A Peer Review of: Prescribing the Authorized Rate of Return: Analysis of Methods for Establishing Just and Reasonable Rates for Local Exchange Carriers Wirelines Competition Bureau Staff Report* (WC Docket No. 10-90) dated May 16, 2013, (dated Sept. 16, 2013) (Bowman Report); Robert Albon and Peter Gibbard, *Peer Review of the Federal Communications Commission Staff Report ‘Prescribing the Authorized Rate of Return: Analysis of Methods for Establishing Just and Reasonable Rates for Local Exchange Carriers (May 16, 2013),’* (dated Sept. 18, 2013) (Albon & Gibbard Report). Doctors Albon and Gibbard submitted peer review reports dated September 6 and 11, 2013 but subsequently revised on September 18, 2013; all versions were submitted into the record in the represcription proceeding.

⁵²³ See May 1, 2013 FCC Letter, Attach. As part of their review, the peer reviewers were directed by the Bureau to comments and reply comments filed by interested parties on the *Staff Report*. See *id.*, Attach. at 2, 22.

⁵²⁴ 47 U.S.C. § 205(a).

⁵²⁵ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870, paras. 641. In *AT&T v. FCC*, for example, the Second Circuit made clear that because section 205 does not require a hearing “on the record,” the APA does not require a full evidentiary hearing in section 205 prescription proceedings. 572 F.2d 17, 21-23 (2d Cir. 1978). Moreover, the court found that the language of section 205(a) itself did not impose greater hearing requirements than the APA – concluding that AT&T “may not complain that it had anything less than a ‘full opportunity’ to be heard” after receiving, in the context of the particular proceeding on review, three rounds of comments. 572 F.2d at 22.

⁵²⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870, paras. 641; see, e.g., *Access Charge Reform*, First Report and Order, 12 FCC Rcd 15982, paras. 75-87 (1997), *aff’d* *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998) (prescribing new limits on subscriber line charges for non-primary residential and multi-line business lines); *Access Charge Reform*, Sixth Report and Order, 15 FCC Rcd 12962, paras. 58, 70-75 (2000), *aff’d in pertinent part*, *Texas Office of Pub. Util. Counsel*, 265 F.3d 313 (5th Cir. 2001) (prescribing revised ceilings on subscriber line charges).

procedural rules to facilitate a more efficient process, including specific paper filing requirements.⁵²⁷ The Commission also sought comment in the *USF/ICC Transformation FNPRM* on the rate of return calculation and the related data and methodology to so calculate.⁵²⁸ In addition, as noted above, the Bureau issued a *Staff Report* recommending a zone of reasonableness for the rate of return and sought comment on its approach in a public notice.⁵²⁹

238. On December 29, 2011, NECA, the Organization for the Promotion and Advancement of Small Telecommunications Companies, and the Western Telecommunications Alliance (collectively, Petitioners) filed a joint petition for reconsideration of the *USF/ICC Transformation Order* that remained pending at the time the *Staff Report* was released.⁵³⁰ Petitioners challenge, among other things, the procedures adopted in the *USF/ICC Transformation Order* as “insufficient to meet the hearing requirement of section 205(a)” and relevant provisions of the Administrative Procedure Act (APA).⁵³¹ Specifically, Petitioners argue that the Commission must first address “identified flaws” in its rules governing reprscription before conducting a hearing based on those rules, using procedures that are “sufficiently rigorous for the adjudicative, adversarial fact-finding process required under section 205(a) of the Act and the APA.”⁵³² The Rural Associations raised similar issues in their comments on the *Staff Report*, which we also address.⁵³³

a. Whether Commission Should Revise Prescription Rules Before Represcribing Rate of Return

239. Petitioners argue that, prior to reprscription, the Commission must first adopt revised rules addressing alleged “flaws” in the prescription rules.⁵³⁴ According to Petitioners, the Commission “admitted its methodology for determining ‘comparable firms’ was deficient” in that it did not know how to account for the fact that many rate-of-return incumbent LECs are locally owned and not publicly traded.⁵³⁵ Petitioners argue that the Commission should correct these alleged “flaws” in the rules before reprscription the rate of return. Similarly, the Rural Associations and GVNW argue that having waived Part 65 procedural rules governing prescription, the Commission must establish clear replacement rules to govern the process under section 205.⁵³⁶ The Rural Associations note that in the *MAG Order*, the Commission stayed the effectiveness of section 65.101 to allow the Commission comprehensively to

⁵²⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870-72, paras. 641-45 & n.1070 (citing 47 C.F.R. § 1.3, *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), and *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990)).

⁵²⁸ *Id.* at 17872, para. 646.

⁵²⁹ *Staff Report*, 28 FCC Rcd at 7124, Exec. Summary; *Staff Report Public Notice*.

⁵³⁰ NECA et al. Petition at 29; National Exchange Carrier Association, Inc., Organization for the Promotion and Advancement of Small Telecommunications Companies, and Western Telecommunications Alliance Reply to Oppositions to Petition for Reconsideration, WC Docket No. 01-90 et al., at 29 (filed Feb. 21, 2012) (NECA et al. Reply). To the extent the Commission has not previously addressed the NECA et al. Petition, we do so in this Order on Reconsideration. See 47 CFR § 1.429(i).

⁵³¹ NECA et al. Petition at 26.

⁵³² *Id.*

⁵³³ See Comments of the National Exchange Carrier Association, Inc., NTCA – The Rural Broadband Association, US Telecom, the Eastern Rural Telecom Association and Western Telecommunications Alliance, WC Docket No. 10-90 et al., at 34-38 (filed Jul. 25, 2013) (Rural Associations *Staff Report* Comments).

⁵³⁴ NECA et al. Petition at 26-27.

⁵³⁵ *Id.*

⁵³⁶ Rural Associations *Staff Report* Comments at 6, 35-36; Reply Comments of GVNW Consulting, Inc., WC Docket No. 10-90, at 6 (filed Aug. 26, 2013) (GVNW *Staff Report* Reply).

review the Part 65 rules to ensure that decisions we make are consonant with current conditions in the marketplace but assert that “complete review” has yet to occur.⁵³⁷

240. We disagree with Petitioners and hereby deny their Petition with respect to these claims. Petitioners mischaracterize the Commission’s prescription process as rigid adherence to set methodologies. The rules provide a framework, but leave the Commission discretion to qualitatively and quantitatively estimate a rate of return. The Commission’s prescription rules specify the calculations for computing the rate of return, i.e. the cost of capital and its component parts, “*unless the record in that [prescription] proceeding shows that their use would be unreasonable.*”⁵³⁸ The orders cited by Petitioners in support addressed deficiencies with the record, not necessarily with the rules themselves, and the Commission has revised those rules since those orders cited were released.⁵³⁹ Petitioners cite generally the *1990 Prescription Order* as support for their arguments. The Commission in the *1990 Prescription Order*, however, rejected the notion that the rules were so flawed that the rulemaking docket related to Part 65 methodologies for calculating the rate of return would need to be complete before represcribing, finding that “while some refinements might be desirable, the Part 65 procedures had worked quite well” when it initiated the prescription proceeding.⁵⁴⁰ Similarly, the Rural Associations cite the 2001 *MAG Order* that stayed the section 65.101 to allow time to review the Part 65 rules.⁵⁴¹ The Commission, however, reviewed the Part 65 rules in the 2011 *USF/ICC Transformation Order & FNRPM*, waiving certain rules to facilitate a more efficient process. Bureau staff also reviewed Part 65 rules in the *Staff Report* subject to notice and comment proposing waiving certain provisions that are no longer reasonable. By this Order, we address instances where strict application of our prescription rules would be inconsistent with a methodologically sound estimate of the rate of return. For example, we revise the cost of debt formula as discussed in further detail below,⁵⁴² and waive the rule requirement to calculate the WACC based on the cost of preferred stock.⁵⁴³ Where we find that strict application of the rules would be unreasonable, such as relying on ARMIS data from RHCs that is no longer collected, we rely on reasonable alternatives.⁵⁴⁴ We do, however, conclude that the prescription rules and its calculations on the cost of capital continue to provide an effective starting point by which to determine an appropriate rate of return.

241. We reject Petitioners’ claims that our “methodology for determining ‘comparable firms’ was deficient,” and that we do not know how to account for the fact that many rate-of-return incumbent LECs are “locally owned and not publicly traded.”⁵⁴⁵ As discussed in further detail below, the most

⁵³⁷ Rural Associations *Staff Report* Comments at 34.

⁵³⁸ 47 CFR § 65.300 (emphasis added).

⁵³⁹ NECA et al. Petition at 26 (citing *1990 Prescription Order*; *Refinement of Procedures and Methodologies for Represcribing Interstate Rates of Return for AT&T Communications and Local Exchange Carriers*; and *Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, Order, 5 FCC Rcd 197, para. 47 (1989); *Regulatory Reform for Local Exchange Carriers Subject to Rate of Return Regulation*, Notice of Proposed Rulemaking, 7 FCC Rcd 5023, para. 6 (1992); *Refinement of Procedures and Methodologies for Represcribing Interstate Rates of Return for AT&T Communications and Local Exchange Carriers*, Notice of Proposed Rulemaking, 2 FCC Rcd 6491 (1987)); see *Amendments of Parts 65 and 69 of the Commission’s Rule to Reform the Interstate Rate of Return Represcription and Enforcement Process*, CC Docket No. 92-133, Report and Order, 10 FCC Rcd 6788 (1995).

⁵⁴⁰ *1990 Prescription Order*, 5 FCC Rcd 7510, para. 26.

⁵⁴¹ Rural Associations *Staff Report* Comments at 34 (citing *MAG Order*, 11 FCC Rcd at 19701-02, para. 210).

⁵⁴² See *infra* Section III.B.5.a.

⁵⁴³ See *infra* Section III.B.5.c.

⁵⁴⁴ See *infra* Section III.B.2; 47 CFR § 65.300(a) (specifying that calculations of the components and weights of the cost of capital shall be based on data reported to the Commission in FCC Report 43-02, i.e. ARMIS data).

⁵⁴⁵ Petition at 26-25.

widely used methods of calculating the cost of equity, a key component in calculating the rate of return, call for data from publicly traded firms, yet the vast majority of rate-of-return carriers are not publicly traded. To address this concern, we select below an appropriate set of publicly-traded surrogate or proxy firms, for which financial data is available publicly to infer the cost of equity for these carriers.⁵⁴⁶ Any deficiencies in the methodology used to calculate the rate of return and use of a proxy group can be and have been addressed in the *Staff Report* and were subject to numerous rounds of notice and comment, which we consider and address again in this order.

b. Notice and Comment Procedures Satisfy Section 205(a) Hearing Requirement

242. Petitioners also argue that the notice and comment procedures the Commission adopted in the *USF/ICC Transformation Order* do not satisfy the section 205(a) hearing requirement.⁵⁴⁷ The Rural Associations and GVNW similarly argue that the procedural process seeking comment on the *Staff Report* did not provide parties with the “full opportunity for hearing” required by section 205(a).⁵⁴⁸ The Rural Associations assert that this is because “prior rate prescription hearings have often involved multiple submissions from parties, giving each side a fair chance to address and rebut proffered facts and arguments” and parties have “reasonable access to discovery (mainly interrogatories and document requests), either directly or as part of a required filing.”⁵⁴⁹ Similarly, Petitioners argue that the Commission should clarify procedures governing presentation of data and discovery.⁵⁵⁰ Petitioners assert that the Commission did not explain why “the need for adjudicative fact-finding – which underlie the Part 65 rules – are no longer operative.”⁵⁵¹ Petitioners assert that key to the “ability to participate fully in a rate-of-return prescription hearing is access to two basic tools: (1) disclosure of the information and assumptions underlying the factual submissions of any parties seeking lower rates of return; and (2) the ability to probe others’ submissions for weaknesses and errors.”⁵⁵² Finally, Petitioners argue that the Commission should “reinstate the 60-60-21-day time frames for adversarial filings set forth in section 65.103 of its rules” because this is “critical” for rate-of-return incumbent LECs with “limited resources to develop the data needed to prepare direct cases, to obtain the services of qualified experts to analyze this data, and to respond fully to adversarial filings.”⁵⁵³

243. We reject these assertions because, consistent with *AT&T v. FCC*, interested parties have had an opportunity to participate in multiple rounds of comments.⁵⁵⁴ We find that interested parties had sufficient notice and opportunity to comment on the rate of return prescription process consistent with the APA and section 205 of the Act.⁵⁵⁵ As the Commission observed in the *USF/ICC Transformation Order*,

⁵⁴⁶ See *infra* Section III.B.3.

⁵⁴⁷ *Id.* at 27-29.

⁵⁴⁸ See Comments of GVNW Consulting, Inc., WC Docket No. 10-90, at 5 (filed Jul. 25, 2013) (GVNW *Staff Report* Comments); Rural Associations *Staff Report* Comments at 34-38.

⁵⁴⁹ Rural Associations *Staff Report* Comments at 34-38; see also GVNW *Staff Report* Comments at 5; GVNW *Staff Report* Reply at 6 & n.7 (filed Aug. 16, 2013) (GVNW *Staff Report* Reply); see also Comments of Moss Adams LLP et al., WC Docket No. 10-90, at 10 (filed Jul. 25, 2013) (Moss Adams *Staff Report* Comments).

⁵⁵⁰ NECA et al. Petition at 29.

⁵⁵¹ *Id.* at 28.

⁵⁵² *Id.* at 28.

⁵⁵³ NECA et al. Petition at 29; see Rural Associations *Staff Report* Comments at 38; Rural Associations *Staff Report* Reply at 3.

⁵⁵⁴ *AT&T v. FCC*, 572 F.2d 17, 21-22 (2nd Cir. 1978); see also *USF/ICC Transformation Order*, 26 FCC Rcd at 17870, para. 641.

⁵⁵⁵ 47 U.S.C. § 205(a).

a formal evidentiary hearing is not required under section 205, and the Commission has on multiple occasions prescribed individual rates in notice and comment rulemaking proceedings.⁵⁵⁶ In fact, the Commission expressly rejected the proposition that it could not “lawfully use simple notice and comment procedures to prescribe the rate of return authorized for LEC interstate access services.”⁵⁵⁷ In the *USF/ICC Transformation Order*, the Commission explicitly waived outdated and onerous procedures historically associated with represcription to streamline and modernize this process. Indeed, the Commission noted that interested parties now file documents electronically making it less burdensome for parties to participate in the prescription proceeding.⁵⁵⁸ Accordingly, the Commission determined that the paper hearing process was no longer necessary to ensure adequate public participation.⁵⁵⁹

244. Moreover, interested parties have had no less than three different opportunities to participate in the represcription process. In response to the *USF/ICC Transformation NPRM*, interested parties had the opportunity to comment on whether to initiate a represcription proceeding.⁵⁶⁰ Subsequently in response to the *USF/ICC Transformation FNPRM*, interested parties had an opportunity to comment on the methodologies used to calculate the WACC and rate of return.⁵⁶¹ The Commission received multiple submissions from parties, which the Commission’s Electronic Comment Filing System (ECFS) generally makes available within 24 hours. The vast majority of interested parties have had access to these materials via the Internet, giving each side a fair chance to timely address and rebut proffered facts and arguments.⁵⁶² Based on these comments, the Commission could have gone straight to order prescribing the rate of return, but instead took the extra step of preparing, releasing and seeking comment on the *Staff Report*.⁵⁶³

245. In the *USF/ICC Transformation Order*, the Commission waived the onerous section 65.103(b) 60-60-21 day filing schedule to coincide with the pleading cycle of the *USF/ICC*

⁵⁵⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870, para. 641 & n.1066 (citing *AT&T v. FCC*, 572 F.2d 17, 21-23 (2d Cir. 1978) (holding that the APA does not require a full evidentiary hearing in section 205 prescription proceedings and that section 205(a) does not require greater hearing requirements than the APA); *Access Charge Reform et al.*, CC Docket No. 96-262 et al., First Report and Order, 12 FCC Rcd 15982, 16012-18, paras. 75-87 (1997), *aff’d Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998) (prescribing new limits on subscriber line charges for non-primary residential and multi-line business lines); *Access Charge Reform et al.*, CC Docket No. 96-262 et al., Sixth Report and Order, 15 FCC Rcd 12962, 12984, 12988-91, paras. 58, 70-75 (2000), *aff’d in pertinent part, Texas Office of Pub. Util. Counsel*, 265 F.3d 313 (5th Cir. 2001) (prescribing revised ceilings on subscriber line charges)).

⁵⁵⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870, para. 641 (citing *Amendment of Parts 65 and 69 of the Commission’s Rules to Reform the Interstate Rate of Return Represcription and Enforcement Processes*, Report and Order, CC Docket No. 92-133, 10 FCC Rcd 6788, 6814, para. 55 (1995) (*Rate of Return Streamlined Rules R&O*); *see generally Rate of Return Streamlined Rules R&O*, 10 FCC Rcd at 6814-15, paras. 55-57 (citing case law establishing that the “full opportunity for hearing” language of section 205 does not mandate “trial-type procedures in addition to, or instead of, notice and comment procedures”).

⁵⁵⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17870-72, paras. 641-45. The Commission waived paper service copy filing requirements, 47 CFR. §§ 65.100(b), 65.103(d)-(e), the filing schedule to coincide with the rulemaking comment and reply schedule in the *USF/ICC Transformation FNPRM*, *see* 47 CFR § 65.103(b), and the represcription requirement to publish notice of the cost of debt, cost of preferred stock, and capital structure computed in the section 65.101(a) notice initiating prescription, *see* 47 CFR § 65.101(a)(2). *See USF/ICC Transformation Order*, 26 FCC Rcd at 17870-72, paras. 641-45.

⁵⁵⁹ *See USF/ICC Transformation Order*, 26 FCC Rcd at 17871-72, paras. 642-45.

⁵⁶⁰ *USF/ICC Transformation NPRM*, 26 FCC Rcd at 4692, para. 56.

⁵⁶¹ *USF/ICC Transformation Order*, 26 FCC Rcd at 18051-56, paras. 1044-60.

⁵⁶² *See id.* at 17871-72, para. 644.

⁵⁶³ *See Staff Report Public Notice; see also Staff Report.*

Transformation FNPRM.⁵⁶⁴ As a result, interested parties had 50 days to file comments and 30 days to file replies on how the Commission should represcribe the rate of return. Furthermore, interested parties had an additional 40 days to file comments and 30 days to file reply comments on the data and methodologies proposed by staff to calculate the rate of return in the *Staff Report*.⁵⁶⁵ We find that interested parties had more than sufficient time and opportunity to address significant arguments and methodologies to calculate the rate of return in the record.

246. Although the Commission waived the section 65.101 requirement that the Commission publish notice of the cost of debt, cost of preferred stock, and capital structure computed in the section 65.101(a) notice initiating prescription, we find that all interested parties had adequate notice of these calculations in the *Staff Report*.⁵⁶⁶ Interested parties had an opportunity to review and comment on the *Staff Report*, including numerous appendices calculating the embedded cost of debt, betas, cost of equity, WACC, capital structure and times-interest-earned ratios⁵⁶⁷ as well as the peer review reports on the *Staff Report*.⁵⁶⁸ Furthermore, there was nothing to prevent parties from filing direct cases or written interrogatories and requests for documents directed to any rate of return submission as permitted under the Commission's rules.⁵⁶⁹ In sum, we find that interested parties had several opportunities to comment on the actual rate of return calculations, thereby easily satisfying the APA and section 205 procedural requirements.⁵⁷⁰ Accordingly, we deny the Petition to the extent described herein.

2. Identifying and Obtaining Data to Compute WACC

247. The first step in the process to represcribe the rate of return is to identify the appropriate data and methodologies to use in calculating the WACC. To calculate the WACC for a company or group of companies, Commission rules require the determination of: (1) the company's capital structure, i.e., the proportions of debt, equity, and preferred stock a company uses to finance its operations; and (2) the cost of debt, equity and preferred stock.⁵⁷¹ The rules specify the calculations for computing components of the WACC, including capital structure and the cost of debt and preferred stock, to determine a composite for all incumbent LECs with annual revenues equal to or above an indexed revenue threshold, adjusted for inflation.⁵⁷² The rules do not, however, require the Commission to use the

⁵⁶⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17872, para. 645.

⁵⁶⁵ *Staff Report Public Notice*, 29 FCC Rcd at 7120. Interested parties also have the ability to participate outside the comment period via ex parte presentations and submissions.

⁵⁶⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17872, para. 645; see 47 CFR § 65.101(a). The rules provide that the Bureau may issue the notice inquiring whether a represcription should commence, including notice of the computed cost of debt, cost of preferred stock, and capital structure. 47 CFR § 65.101(c). Note, the *USF/ICC Transformation Order* apparently contained a typographical error by mistakenly citing section 65.301, which relates to calculating the cost of equity, as opposed to section 65.101, which requires notice when the Commission initiates represcription. *USF/ICC Transformation Order*, 26 FCC Rcd at 17872, para. 645; compare 47 CFR § 65.101(a) with 47 CFR § 65.301.

⁵⁶⁷ See *Staff Report*, 28 FCC Rcd at 7184-98, Appendices D-M; see May 1, 2013 FCC Letter, Attach.

⁵⁶⁸ See May 1, 2013 FCC Letter, Attach.

⁵⁶⁹ See 47 CFR §§ 65.103(b), 65.105(b); see *Rate of Return Streamlined Rules R&O*, 10 FCC Rcd at 6813, para. 52 (Commission noted that it was retaining rule provisions that allow for the filing of "direct, responsive, and rebuttal cases").

⁵⁷⁰ See *United States v. Florida East Coast Ry. Co.*, 410 U.S. 224, 236-38 (1973) (holding that, unless a statute requires that a rulemaking be conducted "on the record," the formal rulemaking provisions of 5 U.S.C. §§ 556-557 are not required); *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 543-44 (1978) (holding that, other than APA compliance, agencies with substantive responsibility in an area have discretion to formulate applicable procedures).

⁵⁷¹ See *Staff Report*, 28 FCC Rcd at 7131, para. 9.

⁵⁷² See 47 CFR §§ 65.300-303; see 47 CFR § 32.9000 (defining the indexed revenue threshold).

results of those calculations to determine the rate of return “if the record in that proceeding shows that their use would be unreasonable.”⁵⁷³ The rules also do not specify how to calculate the cost of equity,⁵⁷⁴ but there are several widely-used asset pricing methods that the Commission should consider in estimating the cost of equity, including the Capital Asset Pricing Model (CAPM) and the Discounted Cash Flow Model (DCF). Both models calculate the cost of equity based on an analysis of publicly traded representative firms’ common stock.⁵⁷⁵ While a firm’s cost of debt can generally be estimated from its accounts, or other public reports of its borrowing costs, direct estimates of the cost of equity for firms that are not publicly traded are not typically possible to make (exceptions being if the firm was sold recently, or the occurrence of some other event that revealed information about the expected income stream and market value of the firm). In such cases, it is not uncommon to infer equity costs from data on firms that are publicly traded.⁵⁷⁶

248. The rules specify that the WACC be calculated using Regional Bell Holding Companies (RHCs) data reported to the Commission through Automated Reporting Management Information System (ARMIS) reports.⁵⁷⁷ When the Commission last represcribed in 1990, it could rely on ARMIS reports to estimate the cost of debt and capital structure, which came from incumbent LECs with investment-grade bond ratings—companies engaged in substantially the same wireline operations as the small incumbent LECs also subject to rate-of-return regulation.⁵⁷⁸ The Commission, however, has forborne from collecting ARMIS reports from the RHCs so this data is no longer readily available.⁵⁷⁹ In the *USF/ICC Transformation FNPRM*, the Commission sought comment on what additional data the Commission should require and rely upon in the absence of ARMIS data.⁵⁸⁰

249. The Commission’s rate of return prescription rules envision calculating the WACC based on data from a proxy group of telephone companies that are intended to represent the universe of rate-of-return carriers. In the past, the Commission used the RHCs as proxy firms to determine capital structure and the costs of debt, equity, and preferred stock for all incumbent LECs.⁵⁸¹ Today, with ARMIS reports a thing of the past, and with the largest RHCs increasingly dissimilar from the smaller rate-of-return incumbent LECs, the Commission must expand its analysis beyond the RHCs to ensure that its analysis

⁵⁷³ 47 CFR § 65.300(a); *1990 Represcription Order*, 5 FCC Rcd 7516-19, paras. 76-102.

⁵⁷⁴ 47 CFR § 65.301.

⁵⁷⁵ *Staff Report*, 28 FCC Rcd at 7146, para. 51.

⁵⁷⁶ *See id.* at 7131, para. 10.

⁵⁷⁷ 47 CFR §§ 65.300(a) (specifying that calculations of the components and weights of the cost of capital shall be based on data reported to the Commission in FCC Report 43–02, i.e. ARMIS data).

⁵⁷⁸ *See Staff Report*, 29 FCC Rcd at 7175, para. 141; *1990 Represcription Order*, 5 FCC Rcd at 7516-19, paras. 76-102. Analyst estimates of the expected growth rates of those companies were readily available, the companies’ equity was widely traded, and the data was reasonably reliable.

⁵⁷⁹ *See Service Quality Customer Satisfaction, Infrastructure and Operating Data Gathering, Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of Certain of the Commission’s ARMIS Reporting Requirements et. al.*, WC Docket No. 08-190 et al., Memorandum Opinion and Order and Notice of Proposed Rulemaking, 23 FCC Rcd 13647 (2008); *Petition of Qwest Corporation for Forbearance from Enforcement of the Commission’s ARMIS and 492A Reporting Requirements Pursuant to 47 U.S.C. § 160(c) et al.*, WC Docket Nos. 07-204, 07-273, Memorandum Opinion and Order, 23 FCC Rcd 18483, 18484, para. 1, 18487, para. 8 (2008); *Petition of USTelecom for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of Certain Legacy Telecommunications Regulations*, WC Docket No. 12-61, Memorandum Opinion and Order, 28 FCC Rcd 7627, 7676, para. 108 (2013), *pet. for rev. denied Verizon v. FCC*, 770 F.3d 961 (D.C. Cir. 2014).

⁵⁸⁰ *USF/ICC Transformation Order*, 26 FCC Rcd at 18052-53, para. 1050.

⁵⁸¹ *See generally 1990 Represcription Order.*

reasonably reflects the nature of today's rate-of-return incumbent LECs.⁵⁸² We find that it is no longer reasonable to rely exclusively on RHC data based on reports no longer collected as specified in our rules.⁵⁸³ Accordingly, we find that we must identify a comparable proxy group representing the universe of rate-of-return carriers from which to draw data to calculate the WACC.

3. Identifying an Appropriate Proxy Group for Rate-of-Return Carriers

250. The reliability of our WACC calculation depends on the representativeness of the proxy group we select. The Commission sought comment in the *USF/ICC Transformation FNPRM* on the group of companies that should be selected as proxies.⁵⁸⁴ Staff considered comments filed in response, proposing that the Commission use data from a proxy group of 16 companies consisting of (1) RHCs (RHC Proxies), (2) mid-sized price cap incumbent LECs (Mid-Size Proxies), and (3) publicly-traded rate-of-return incumbent LECs (Publicly-Traded RLEC Proxies).⁵⁸⁵ Staff developed its recommended proxy group based on qualitative comparison between rate-of-return carriers for which the WACC is being calculated and potential proxies, considering whether the proposed proxies face similar risks, which the cost of capital is a function of, and whether they have a similar institutional setup.⁵⁸⁶ Staff used a three-part test to select its proxy group looking at (1) whether companies' operations consisted of significant incumbent LEC price-regulated interstate telecommunications services, (2) the extent to which firms offer the same or similar services as rate-of-return carriers based on market and regulatory risks, and (3) the reliability of financial data.⁵⁸⁷

251. Commenters criticize staff's methodology for selecting its proposed proxy group with which it estimated the WACC.⁵⁸⁸ The Rural Associations criticize the analysis for "'streetlight effect' bias – i.e., the tendency to use data simply because it is available, not because it is relevant."⁵⁸⁹ We disagree and find that staff reasonably relied on available data that was both relevant and reliable.

252. As an initial matter, there is scant reliable publicly available data for estimating the cost of capital specific to rate-of-return incumbent LECs.⁵⁹⁰ The most widely used methods of estimating the cost of equity in particular call for data only available from publicly-traded firms, yet the vast majority of

⁵⁸² *Staff Report*, 29 FCC Rcd at 7140-41, paras. 41-42. Indeed, the RHCs are no longer subject to rate-of-return regulation. *See Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, 5 FCC Rcd 6786, 6818-20, paras. 257-59 (1990), *aff'd Nat'l Rural Telecom Ass'n v. FCC*, 988 F.2d 174 (D.C. Cir. 1993).

⁵⁸³ *See* 47 CFR §§ 65.300(a).

⁵⁸⁴ *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18053, para. 1052.

⁵⁸⁵ *See Staff Report*, 29 FCC Rcd at 7132-33, paras. 13. The RHC Proxies are AT&T, Verizon, and CenturyLink. The Mid-Size Proxies are Alaska Communications System Group (ACS), Cincinnati Bell, FairPoint Communications, Frontier Communications, Hawaiian Telecom, Lumos Networks Corp., and Windstream Corporation. The Publicly-Traded RLEC Proxies are Altea Communications, Consolidated Communications, HickoryTech Corp., New Ulm Telephone, Shenandoah Telecommunications, and Telephone and Data Systems, Inc. *Id.* at 7133, para. 15 nn.36-38.

⁵⁸⁶ *Staff Report*, 28 FCC Rcd at 7132, para. 12 (citing Tom Copeland, Time Koller, and Jack Murrin, *Valuation: Measuring and Managing the Value of Companies*, at 219 (McKinsey & Company 2000)).

⁵⁸⁷ *Id.* at 7132-33, paras. 11-13.

⁵⁸⁸ Rural Associations *Staff Report* Comments at 20-25; Comments of the Alaska Rural Coalition, WC Docket No. 10-90, at 9 (filed Jul. 25, 2013) (Alaska Rural Coalition *Staff Report* Comments); Comments of John Staurulakis, Inc. on Rate of Return *Staff Report*, WC Docket No. 10-90, at 3-4, 9 (filed Jul. 25, 2013) (JSI *Staff Report* Comments); Comments of the National Tribal Telecommunications Association, WC Docket No. 10-90, at 7-9 (filed Jul. 25, 2013) (NTTA *Staff Report* Reply).

⁵⁸⁹ Rural Associations *Staff Report* Comments at 22.

⁵⁹⁰ *See* Reply Comments of AT&T, WC Docket No. 10-90, at 9 (filed Aug. 26, 2013) (AT&T *Staff Report* Reply).

rate-of-return carriers are not publicly traded. A publicly-traded company's stock price and dividend payments are observable, while those of a privately held firm, including the overwhelming majority of rate-of-return incumbent LECs, are not.⁵⁹¹ Therefore, using the models used most often to estimate the cost of equity, the cost of equity for firms that are not publicly traded is inferred based on data from firms that are publicly traded.⁵⁹² Because the vast majority of rate-of-return carriers are not publicly traded, the Commission must select an appropriate proxy group of incumbent LECs, for which financial data is publicly available and which face similar risks as rate-of-return carriers to calculate the cost of capital.⁵⁹³

253. Furthermore, staff selected the proxy group based in part on the reliability of financial data such as the frequency equity is traded and overall financial health.⁵⁹⁴ These factors were not, however, the only factors. Staff also relied on publicly-available data and observable stock prices for a proxy group of publicly-traded telecommunications companies that would enable the development of estimates that as closely as possible reflect the risk of the market for regulated interstate telecommunications services.⁵⁹⁵ To select this proxy group, staff applied a qualitative analysis that included a number of different factors, including the extent to which a company's operations could be classified as price-regulated interstate telecommunications services and similarity to rate-of-return operations.⁵⁹⁶ We find that staff's qualitative approach was reasonable, not simply relying on available data, but data that was both reliable and relevant to the analysis.

254. As one key criterion for selection, staff required that a proxy firm derive 10 percent or more of its revenues from price-regulated interstate telecommunications services as an incumbent LEC.⁵⁹⁷ The Rural Associations characterize this selection criteria as "arbitrary" and without justification, which it claims is lower than the rate-of-return incumbent LECs as a group.⁵⁹⁸ While we agree with the Rural

⁵⁹¹ The Commission sought comment on what additional data it should require and rely upon. *USF/ICC Transformation Order*, 26 FCC Rcd at 18052-53, para. 1050. The Commission sought comment on what additional data it should require and rely upon. *Id.* at 18052-53, para. 1050. We declined to adopt a voluntary or mandatory data collection because the cost of equity still would have to be inferred from estimates based on a proxy group. As the cost of equity typically is significantly greater and has a larger variance than the cost of debt, the additional value of any improvement in the accuracy of a cost of debt estimate derived from data supplied in response to a request is unlikely to outweigh the additional cost of that request, in our judgement. We also note that the average cost of debt estimate in the *Staff Report* for the six rate-of-return incumbent LECs, excluding Consolidated, which now is entirely a price cap incumbent LEC, is 4.38%, which is lower than the average for the entire proxy group, 5.87%, including these six rate-of-return incumbent LECs. These six incumbent LECs, like most rate-of-return incumbent LECs, have access to have access to loans made through rural-company programs (such as those administered by the Rural Utilities Service and CoBank). In addition, as a firm's capital structure affects its risk and hence its cost of equity, these cost of equity estimates might have to be adjusted to reflect any differences between capital structure estimates based on data supplied in response to a request and on the proxy group, further complicating the analysis without necessarily adding precision to the overall WACC estimate. We also have a preference for publicly-available data, in particular, stock price data that reflect an active market in which stocks are bought and sold so that equity values reflect recent sales prices and are up-to-date. Moreover, data on publicly-traded firms are reliable because these data are subject to the scrutiny of analysts and the broader investment community.

⁵⁹² *Staff Report*, 28 FCC Rcd at 7132, para. 10.

⁵⁹³ See *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18053, para. 1052.

⁵⁹⁴ *Staff Report*, 28 FCC Rcd at 7132, para. 12.

⁵⁹⁵ *Id.* GVNW argues that staff's recommended rate of return zone of reasonableness did not reflect the risk portfolio for rural carriers. GVNW *Staff Report* Comments at 6.

⁵⁹⁶ *Staff Report*, 28 FCC Rcd at 7132, para. 12.

⁵⁹⁷ *Id.*

⁵⁹⁸ Rural Associations *Staff Report* Comments at 22-23; see Comments of the ICORE Companies, WC Docket No. 10-90, at 5-7 (filed Jul. 25, 2013) (ICORE *Staff Report* Comments). The Rural Associations also criticize staff for selecting a proxy group based on the extent firms offer similar services without defining similar services. Rural

(continued....)

Associations that 10 percent is a relatively low number, we find the proxy group of firms selected after applying the 10 percent threshold (along with the other criteria used in the *Staff Report*) to be reasonable. Staff looked at earnings and revenues reported on companies' Securities and Exchange Commission (SEC) Form 10-Ks to identify its proxy group. SEC Form 10-Ks for the proxy group reveal that notwithstanding diversification, most, if not all, of the firms in the proxy group derive a substantial, and in many cases, the largest, portion of their revenues from facilities-based wireline telecommunications services provided over networks that they own, finance, build, operate, and maintain, which is exactly what rate-of-return incumbent LECs do.⁵⁹⁹ Staff excluded from the proxy group telecommunications companies that provide a different core or set of core services, and/or different assets, scale, scope, customer base, marketing strategy, market or market niche, and/or competitive position than facilities-based wireline telecommunications services.⁶⁰⁰

255. The WACC estimates the cost of capital for price-regulated interstate special access and common line services which are facilities-based wireline telecommunications services. The proposed proxy group consisted of firms where, in addition to their price-regulated business operations, a substantial portion of their business operations that are not price-regulated provide facilities-based wireline telecommunications services. Thus, an overall WACC estimate for the firm as a whole should be a reasonable approximation of the WACC for the price-regulated interstate access service. In fact, many of the wireline network assets, e.g., wire centers, nodes, fiber or copper, conduit, trenches, manholes, telephone poles, etc., are shared among these different wireline services. Moreover, some of the different wireline services are sold to the same customers. Thus, given at least roughly similar supply-side characteristics, and roughly similar demand-side characteristics, the risk of the facilities-based price-regulated interstate access services and the risk of these companies' other facilities-based services would reasonably be expected to have roughly similar, though not precisely the same, level of risk. There are no pure-play, price-regulated providers of wireline interstate access services that issue publicly-traded stock on which to base WACC estimates. We therefore find that staff's application of the 10 percent threshold produces a reasonable proxy on which to base estimates of the WACC for price-regulated interstate access services.⁶⁰¹

256. The Rural Associations criticize staff's proxy group for including RHCs Proxies, Mid-Size Proxies and Publicly-Traded RLEC Proxies as unrepresentative of the market risks that rate-of-return incumbent LECs face affecting their ability to attract capital. For example, the Rural Associations proposed estimating the cost of capital using rate-of-return incumbent LEC-specific data rather than data

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Associations *Staff Report* Comments at 22-23. Staff, however, defined similar services as companies providing service similar to price-regulated interstate special access and common line service which will face similar market and regulatory risks that affect the cost of capital, such as companies serving rural or high-cost areas and companies subject to rate-of-return regulation. *Staff Report*, 29 FCC Rcd at 7132-33, para. 12.

⁵⁹⁹ See EDGAR Company Filings, SEC, <http://www.sec.gov/edgar/searchedgar/companysearch.html>.

⁶⁰⁰ For example, staff excluded companies that are: (1) predominantly cable companies, such as Comcast; (2) predominantly wireless and/or long distance phone companies, such as Sprint; (3) competitive LECs, and telecommunications companies that primarily resell or lease other companies' services or networks and that do not otherwise own and operate their own wireline networks; and (4) foreign-based firms. See *Staff Report*, 28 FCC Rcd at 7137-38, paras. 26-30.

⁶⁰¹ We note that even the Rural Associations' approach to estimating the cost of capital, which relies, among other things, on observations on the prices that rate-of-return incumbent LECs have paid to acquire access lines, does not isolate the cost of capital for facilities-based price-regulated interstate access services, because these lines can be used to provide multiple wireline services. See Rural Associations *Staff Report* Comments at 31-34 & App. B at 4. Thus, the purchase price necessarily would reflect the expectations of buyers and the sellers in the marketplace that these lines would eventually if not immediately be used to provide multiple wireline services.

assembled from staff's proxy companies.⁶⁰² ICORE asserts that the RHC Proxies and Mid-Size Proxies have more diverse offerings than rate-of-return incumbent LECs which therefore face higher costs of capital.⁶⁰³ Ad Hoc rebuts that argument, noting that it does not necessarily follow that less diverse operations means higher cost of capital and criticizes such arguments as "pure speculation" lacking any evidentiary basis.⁶⁰⁴ AT&T notes that critics of staff's proxy group did not submit data into the record to negate the need for proxies or proxies more representative of rate-of-return incumbent LECs than staff's proposed proxy.⁶⁰⁵ We find the staff's selection of the proxy group reasonable for the reasons given above and reject the Rural Associations' proposed proxy group for the reasons below.

257. In addition, the Rural Associations, the Alaska Rural Coalition and peer reviewer Professor Bowman question the inclusion in the proxy group of firms that had recently emerged from bankruptcy proceedings, including FairPoint Communications, Inc. (FairPoint), Hawaiian Telecom, as well as certain "financially unhealthy" Mid-Size Proxies.⁶⁰⁶ Professor Bowman argues in general that rate-of-return regulation is appropriate for companies that are financially healthy, and that an operation that is subject to rate-of-return regulation would not be expected to go bankrupt.⁶⁰⁷ Staff acknowledged in the *Staff Report* that a company's overall financial health makes its financial data more reliable in determining the cost of equity than that of a company in financial difficulty, which was part of staff's three-part test in selecting the proxy group.⁶⁰⁸

258. FairPoint entered bankruptcy in October 2009 and exited in January 2011, while Hawaiian Telecom entered bankruptcy in December 2008 and exited in October 2010.⁶⁰⁹ In the *Staff Report*, staff generally based the betas, a variable included in the CAPM cost of equity calculation that measures a company's stock volatility relative to the market, on weekly data for the 5-year period ending September 18, 2012. However, staff accounted for the FairPoint and Hawaiian Telecom bankruptcies by basing their betas instead on post-bankruptcy data. As a result, none of the data on which their betas are based reflects the business changes FairPoint or Hawaiian Telecom undertook during the periods prior to and during bankruptcy. Staff's adjustment should minimize any potential error in the CAPM estimates of the cost of equity for FairPoint and Hawaiian Telecom relating to bankruptcy. As neither FairPoint nor Hawaiian Telecom pays dividends, staff did not use the DCF model to estimate the cost of equity for these two companies in the *Staff Report*. Further, capital structure estimates are based on post-bankruptcy

⁶⁰² Rural Associations *Staff Report* Comments at 31-33 & Appx. B; Rural Associations *Staff Report* Reply at 4-5; see also Comments of TCA, WC Docket No. 10-90, at 5 (filed Jul. 25, 2013) (TCA *Staff Report* Comments); Reply Comments of TCA, WC Docket No. 10-90, at 6 (filed Aug. 26, 2013) (TCA *Staff Report* Reply).

⁶⁰³ ICORE *Staff Report* Comments at 5-7.

⁶⁰⁴ Reply Comments of the Ad Hoc Telecommunications Users Committee, WC Docket No. 10-90 et al., at 6 (filed Aug. 26, 2013) (Ad Hoc *Staff Report* Comments).

⁶⁰⁵ See AT&T *Staff Report* Reply at 9-10.

⁶⁰⁶ Bowman Report at 2; Alaska Rural Coalition *Staff Report* Comments at 10; Rural Associations *Staff Report* Comments at 24.

⁶⁰⁷ Bowman Report at 2.

⁶⁰⁸ *Staff Report*, 28 FCC Rcd at 7132, para. 12.

⁶⁰⁹ See FairPoint Communications, Press Release, FairPoint Reaches Agreement with Bank Lenders – Initiates Voluntary Chapter 11 Proceeding (dated Oct. 26, 2009), https://www.fairpoint.com/document/FairPoint%20Balance%20Sheet%20Restructuring-FINAL_tcm12-7409.pdf; FairPoint emerges from bankruptcy, debt on \$1B, Business Week, Associated Press (dated Jan. 24, 2011), <http://www.businessweek.com/ap/financialnews/D9KV0PGG1.htm>; see Amy Thomson, Hawaiian Telecom Exits Bankruptcy with Reduced Debt, Bloomberg Business (Oct. 28, 2010), <http://www.bloomberg.com/news/articles/2010-10-29/carlyle-group-s-hawaiian-telcom-emerges-from-bankruptcy-with-reduced-debt>.

data, which should minimize errors to the WACC estimates.⁶¹⁰ In response to Bowman's assumption that rate-of-return companies would not be expected to go bankrupt, we note that there were other rate-of-return incumbent LECs that went bankrupt that staff excluded from its proxy group that otherwise would have met its three-part test.⁶¹¹ Thus, staff was careful to calculate the rate of return based on data from its proxy group that it felt were representative of most rate-of-return companies.

259. The Rural Associations also criticize the financial health of the Mid-Size Proxies included in staff's proxy group.⁶¹² Staff acknowledged in the *Staff Report* that the Mid-Size Proxies in general have a large share of debt in their capital structures, low times-interest-earned ratios, and non-investment-grade debt ratings, and thus are less than ideal for estimating the cost of capital.⁶¹³ Staff also found, however, that the Mid-Size Proxies are less diversified than RHCs and thus match more closely the majority of rate-of-return incumbent LECs' wireline service offerings. Staff further found that the Mid-Size Proxies, like the majority of rate-of-return incumbent LECs, but in contrast to the RHCs, have a significant fraction of their incumbent LEC operations in sparsely populated, high cost, rural areas of the country. Further, staff found that the Mid-Size Proxies have a relatively large number of analysts' growth estimates compared to the Publicly-Traded RLEC Proxies which is reflected in the consensus growth rate used in the DCF model to estimate the cost of equity. Thus, in the *Staff Report*, staff recommended that the Commission include the Mid-Size Proxies in calculating a composite WACC, but not rely on them exclusively.⁶¹⁴

260. We agree with the staff recommendation in the *Staff Report* to include, but not rely exclusively on the Mid-Size Proxies in the overall proxy group. The Rural Associations raised concerns with the Mid-Size Proxies other than Windstream, because in its view these firms are not in good financial health.⁶¹⁵ The Rural Associations, however, did not offer any concrete definition of good financial health, nor any objective and practical criteria that might be used to measure the health of the firms and to determine whether they should be excluded from the process of estimating the WACC. Although these Mid-Size Proxies might be less than ideal proxies for estimating the cost of capital, we are reluctant to exclude them from the overall proxy group and thus lose the value these proxies contribute generally to the data and WACC estimates. These incumbent LECs operate in areas similar to the sparsely populated, high cost, rural areas in which rural rate-of-return incumbent LECs operate, and are publicly-traded and studied by financial professionals, making it possible to develop WACC estimates for these companies using standard cost of capital methodologies.⁶¹⁶ In our judgement, averaging WACC estimates for these Mid-Size Proxies along with estimates for the other companies in the overall proxy group to develop an overall WACC estimate for rate-of-return incumbent LECs is more likely than not to improve the accuracy of the overall estimate, notwithstanding the potential for error in the WACC

⁶¹⁰ Capital structure data was based on debt and equity outstanding as of December 31, 2012, and their cost of debt is based on 2012 interest expense and debt outstanding as of December 31, 2012.

⁶¹¹ For example, Otelco, Inc. is a publicly-traded incumbent LEC subject to rate-of-return regulation which entered bankruptcy in March 2013 and exited in May 2013 that was excluded from the proxy group. See Business Wire, *Otelco Emerges from Bankruptcy with New Credit Facility and New Listed Security* (May 24, 2013), <http://www.businesswire.com/news/home/20130524005519/en/Otelco-Emerges-Bankruptcy-Credit-Facility-Listed-Security>.

⁶¹² See Rural Associations *Staff Report* Comments, Appx. A, Billingsley Stmt. at 7-8. This Mid-Size Proxies recommended by staff includes Alaska Communications Services, Inc., Cincinnati Bell, Frontier, and Windstream, in addition to FairPoint and Hawaii Telecom. *Staff Report*, 29 FCC Rcd at 7135, para. 21.

⁶¹³ *Staff Report*, 28 FCC Rcd at 7135, para. 22.

⁶¹⁴ *Id.* at 7135-36, para. 22.

⁶¹⁵ Rural Associations *Staff Report* Comments, Appx. A, Billingsley Stmt. at 2, 7-8.

⁶¹⁶ See *Staff Report*, 28 FCC Rcd at 7135-36, paras. 21-22.

estimates for the Mid-Size Proxies.⁶¹⁷ There is no perfect WACC estimate, as a WACC estimate made for any company always will have some amount of error, which is why we consider a range of possible results.

261. In sum, we find that staff's approach to identifying a representative proxy group to be reasonable, including its decision to include RHC Proxies, Mid-Size Proxies, and Publicly-Traded RLECs Proxies in the proxy group. Notably, joint peer reviewers Albon and Gibbard found that the selections made appropriately balanced the trade-offs of a proxy group that is too small, which results in measurement errors, and a proxy group that is too large, which is unrepresentative.⁶¹⁸ We reiterate and agree with staff's position that, collectively, the three groups represent a wide spectrum of incumbent LEC operations, include both price cap and rate-of-return regulated operations, and include those incumbent LECs with the most widely traded equity, allowing greater confidence in the calculations that rely on the public trading of stock, especially given that it is highly uncertain where within that spectrum non-publicly-traded rate-of-return incumbent LECs lie.

4. Data Relied on in *Staff Report*

262. The allowable rate of return should reflect a reasonable estimate of the current cost of capital.⁶¹⁹ The Bureau released the *Staff Report* on May 16, 2013, calculating the WACC based on data then-available. This raises the question whether we should continue to rely on such data to calculate the rate of return. We find that changes to monthly average yields on Treasury securities and corporate bond yields since the *Staff Report* was issued are not significant enough to warrant a complete update of the data used by staff to calculate the cost of capital. Accordingly, for the reasons explained below, we continue to rely on data in the *Staff Report* used to calculate the WACC.

263. Section 65.101(a) of our rules specifies that we should initiate the rate of return prescription process when we determine that the monthly average yields on 10-year Treasury securities remain, for a consecutive six month period, at least 150 basis points above or below the average of the monthly average yields in effect for the consecutive six month period immediately prior to the effective date of the current prescription.⁶²⁰ As the cost of capital is constantly changing as a result of the interactions in the financial markets between buyers and sellers of debt and equities, our rule recognizes that the existing rate of return is based on financial data that is a snapshot in time and as such might not reflect the prevailing cost of capital. Likewise, the data reflected in the *Staff Report* is a snapshot in time that might not reflect the current cost of capital at a different point in time. The rule implicitly recognizes that the cost of debt and equity, in general, can be expected to move roughly together over time, as debt and equity investors seek to optimize their portfolios, choosing among alternative investments by balancing the tradeoff between the expected risk and return of these alternatives, and as firms seek to optimize their capital structures, choosing between debt and equity to finance their assets.⁶²¹ We also now have the benefit of commenters' and peer reviewers' scrutiny of the *Staff Report*, including the data relied on in that report.

264. We therefore analyze interest rates, similar to the analysis contemplated under section 65.101(a), to determine whether the data relied in the *Staff Report* to calculate the WACC is appropriately

⁶¹⁷ We conclude as we do for the Mid-Size Proxies that the value of the information reflected in the data and thus in the WACC estimates for these companies outweighs any concerns about the potential for relatively large error in these estimates owing to the financial health of these companies.

⁶¹⁸ Albon & Gibbard Report at 2. Moreover, Professor Bowman agrees with the staff's choice of proxy companies with the exception of Frontier. Bowman Report at 3.

⁶¹⁹ See *1990 Represcription Order*, 5 FCC Rcd at 7508, para. 3.

⁶²⁰ See 47 CFR § 65.101(a).

⁶²¹ See generally 47 CFR §§ 65.101 *et seq.*

current for represcribing the rate of return in this Order.⁶²² For this analysis, we use two different six-month benchmarks against which to compare more recent interest rates.⁶²³ First, we calculate the average of the monthly average yields in effect for the consecutive six-month period beginning October 2012 and ending March 2013. To be thorough, we calculate this six-month average not only for 10-year Treasury securities, but also for 5-, 7-, 20-, and 30-year securities, as published online by the Federal Reserve and Moody's Aaa and Baa corporate bond yields which are published online by the Federal Reserve.⁶²⁴ We choose this six-month period because in the *Staff Report* (1) the expected risk-free rate reflected in the CAPM was the rate in effect as of the market close on March 26, 2013, (2) the stock prices and dividend payments reflected in the DCF model were as of the market close on March 26, 2013, and (3) the growth rates used in the DCF model were as of March 27, 2013.⁶²⁵ For the second six-month benchmark, we average the monthly average yields in effect for the consecutive six-month period beginning July 2012 and ending December 2012. We calculate six-month averages for the same securities identified above. We choose this six-month period because in the *Staff Report* (1) the cost of debt is based on 2012 interest expense and debt and equity outstanding data,⁶²⁶ and (2) the estimate of the expected market risk premium used in the CAPM is based on stock price and interest rate data for the years 1928 to 2012.⁶²⁷

265. We compare the most recent monthly yields on the various Treasury and corporate securities to these two benchmarks. With respect to the October 2012-March 2013 benchmark, the monthly average yield on 10-year Treasury securities, the key benchmark in rule 65.101(a), in September 2015, the most recent month for which yield data are published by the Federal Reserve, is 2.17 percent, as compared to the six-month average of the average monthly yields, 1.83 percent. This difference is only 34 basis points, a spread significantly less than 150 basis points, the standard reflected in rule 65.101(a). The differences between the September 2015 average yields on the 5-, 7-, 20-, and 30-year Treasury securities and on Aaa and Baa corporate bonds, as compared to the six-month average of the monthly average for each security, respectively, are as follows: 73, 66, 34, 2, -5, 36, and 65 basis points.⁶²⁸ The greatest difference between the six-month average and any monthly average for any of these securities is the 107 basis point difference that existed in December 2013 and January 2014 for 7-year Treasury securities and December 2013 for 10-year Treasury securities, but the average of these differences for these securities were only 76 and 57 basis points, respectively, over the entire period.⁶²⁹ The fact that greatest difference between the six-month average and any monthly average for any of these securities is only 107 basis points demonstrates that the difference was never as large as 150 basis points relative to a single month, let alone for six consecutive months, the standard under the Commission's rule. The average of the differences between the six-month average and monthly averages throughout the period for the 5-, 20- and 30-year Treasury securities and Aaa and Baa corporate bonds were only 74, 36, 24, 42, and 27 basis points, respectively.⁶³⁰

⁶²² See Appendices G & H.

⁶²³ The bond yields and calculations described in this section are set out in Appendices G & H.

⁶²⁴ See Board of Governors of the Federal Reserve System, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm>.

⁶²⁵ *Staff Report*, 29 FCC Rcd at 7150-51, para. 64.

⁶²⁶ *Id.* at 7186, Appx. E.

⁶²⁷ *Id.* at 7152, para. 68.

⁶²⁸ A minus sign means that the average of the September 2015 yields is less than the average of the monthly yields for the period October 2012 to March 2013.

⁶²⁹ See Appendix G; see Board of Governors of the Federal Reserve System, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm>.

⁶³⁰ See Board of Governors of the Federal Reserve System, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm>.

266. With respect to the July 2012-December 2012 benchmark, the monthly average yields on 5-, 7-, 10-, 20-, and 30-year Treasury securities and Aaa and Baa corporate bonds in September 2015 as compared to the six-month average of the average monthly yields for each security, respectively, are as follows: 81, 78, 50, 21, 15, 57, and 62 basis points. The greatest difference between the six-month average and any monthly average for any of these securities is the 123 basis point difference that existed in December 2013 for 10-year Treasury securities, but the average of these differences for this security was only 68 basis points over the entire period. The average of the differences between the six-month average and monthly averages throughout the period for the 5-, 7-, 20- and 30-year Treasury securities and Aaa and Baa corporate securities were only 75, 82, 53, 43, 61, and 22 basis points, respectively.⁶³¹

267. Based on these findings, we conclude that interest rate changes have not been sufficiently large between release of the *Staff Report* and this Order adopting the new rate of return to warrant updating the data in the *Staff Report*. The yields today on Treasury securities and on Aaa and Baa corporate bonds are not significantly different from the yields on these securities that existed at the time of the study—the differences in all cases are much less than 150 basis points. Accordingly, we will rely on the data reflected in the *Staff Report*, except in those instances where we make adjustments to reflect valid concerns expressed by the commenters and peer reviewers in the record of this proceeding. In those cases, we will use data of the same time periods as the data in the *Staff Report* to ensure consistency.

5. Calculating the WACC

268. As discussed above, the WACC estimates the rate of return that the incumbent LECs must earn on their investment in facilities used to provide regulated interstate services in order to attract sufficient capital investment. The Commission's rules specify that the composite WACC is the sum of the cost of debt, the cost of preferred stock, and the cost of equity, each weighted by its proportion in the capital structure of the telephone companies:⁶³²

$$\text{WACC} = [(\text{Equity} / (\text{Debt} + \text{Equity} + \text{Preferred Stock})) * \text{Cost of Equity}] + [(\text{Debt} / (\text{Debt} + \text{Equity} + \text{Preferred Stock})) * \text{Cost of Debt}] + [(\text{Preferred Stock} / (\text{Debt} + \text{Equity} + \text{Preferred Stock})) * \text{Cost of Preferred Stock}]$$

269. The Commission's rules currently require that the capital structure be calculated using the observed book values of debt, preferred stock, and equity.⁶³³ Under the Commission's rules, capital structure is calculated as follows:

$$\text{Capital Structure} = \text{Book Value of a Particular Component} / (\text{Book Value of Debt} + \text{Book Value of Preferred Stock} + \text{Book Value of Equity})^{634}$$

270. In the *Staff Report*, staff recommended calculating capital structure using market values instead of book values as a better indicator of a firm's target capital structure.⁶³⁵ The book value of a firm

⁶³¹ *Id.*

⁶³² 47 CFR §§ 65.300-5.

⁶³³ *Staff Report*, 29 FCC Rcd at 7139, para. 36.

⁶³⁴ *See* 47 CFR §65.304.

⁶³⁵ *Staff Report*, 28 FCC Rcd at 7143, para. 44. As in the *Staff Report*, we use the book value of debt as a proxy for its market value to estimate capital structure based on market value. We use the market value of equity for this purpose by multiplying common stock equity shares outstanding by the common stock price. Financial analysts frequently assume that the book value of debt is a good proxy for the market value of debt, especially for regulated companies. Estimating the market value of debt is difficult to do in practice. *See* Roger A. Morin, New Regulatory Finance, at 480 n.1 (Public Utility Reports 2006); Shannon P. Pratt & Roger J. Grabowski, Cost of Capital: Applications and Examples, at 370 (4th Ed. 2010); *see also* Initial Comments of NECA et al., WC Docket No. 10-90 et al., Appx. C, Billingsley Stmt. at 5, Attach. 5 (filed Jan. 18, 2012) (NECA et al. *FNPRM* Comments). As old debt that has different market and book values matures, over time a firm that has a target capital structure would add new
(continued....)

is the book value of its equity plus the book value of its liabilities whereas the market value is the amount that would have to be paid in a competitive market to purchase the company and fulfill all of its financial obligations, i.e., the sum of market values of debt and equity.⁶³⁶ Staff found that several carriers within the proxy group have book value capital structures in excess of 100 percent debt plus equity, which is nonsensical because presumably a firm's stock trades at a positive price. Because a firm normally has a positive equity value, its debt should be less than 100 percent debt plus equity.⁶³⁷ Accordingly, staff concluded that book values did not provide reasonable data with respect to capital structure as required by section 65.300.⁶³⁸ Instead, staff proposed using market values as a more accurate approximation of capital structure.⁶³⁹ Commenters did not weigh in on staff's proposed approach. Professor Bowman recommends an alternative approach be considered for calculating capital structure based on the capital structure that would be appropriate to "encourage a new entrant in a (quasi) regulated competitive market."⁶⁴⁰ Bowman notes, however, that this method is "unavoidably subjective to a degree beyond that of the standard estimations developed in [the *Staff Report*]."⁶⁴¹ Staff noted a similar alternative approach in the *Staff Report*, a hypothetical capital structure that regulators sometimes use to develop WACC estimates.⁶⁴² We find that the firms themselves know more about their businesses than we could, therefore we will not substitute our judgement for firms' real-world decision-making as to the choice between debt and equity financing, as reflected in the data. Moreover, a capital structure that would encourage market entry is difficult to estimate and, as Bowman asserts, is subjective, as there is no widely accepted theory on the debt-equity choice.⁶⁴³ Therefore, we decline to adopt this approach. We find that staff's approach using market values instead of book values to estimate capital structure is reasonable and adopt this approach.

a. Cost of Debt

271. The embedded cost of debt is the cost of debt (expressed as a rate of interest) issued by the firm in the past and on which it paid interest over an historical accounting period (e.g., the most recent calendar year).⁶⁴⁴ The current cost of debt is the cost of debt that the firm would issue today and on which it would pay interest going forward (and thus sometimes is said to be a forward-looking cost).⁶⁴⁵ In the *Staff Report*, staff calculated the cost of debt based on the embedded cost of debt formula specified in the

(Continued from previous page) _____

debt, and that new debt would have the same market and book values on the date that it is issued. As a result of this debt replacement process, the market and book values of such a firm's debt would tend not to differ significantly over time. See Richard Malekian, Cost of Capital Tutorial, at 16 (Shareholder Value Consultants, Inc. 2009). Firms also would have the opportunity to refinance old debt with new debt and would have the incentive to do so if interest rates decrease, as has been the case in the recent past, and this, too, would push the market and book values of debt toward each other.

⁶³⁶ See *Staff Report*, 28 FCC Rcd at 7180-83, Appx. C.

⁶³⁷ See *id.* at 7141, para. 41 & n.66.

⁶³⁸ See 47 CFR §65.304(a) ("The results of the [WACC] calculations shall be used in the represcription proceeding to which they relate unless the record in that proceeding shows that their use would be unreasonable.").

⁶³⁹ *Staff Report*, 29 FCC Rcd at 7141, para. 42.

⁶⁴⁰ Bowman Report at 4.

⁶⁴¹ *Id.*

⁶⁴² See *Staff Report*, 28 FCC Rcd at 7139-40, para. 37 n.61 (citing Stewart C. Myers, *Capital Structure*, J. Econ. Persp. 81-102 (Spring 2001)).

⁶⁴³ Bowman Report at 4.

⁶⁴⁴ See 47 CFR § 65.302; Morin, *supra* note 635, at 26-27.

⁶⁴⁵ Morin, *supra* note 635, at 26-27.

Commission's rules with data derived from staff's proxy group SEC Form 10-Ks.⁶⁴⁶ In the alternative, staff considered calculating the cost of debt based on the current cost of debt, which would be based on the current yield on bonds that have the same rating as the proxy firms, and for a maturity period comparable to the maturity period typical for the debt issued by the proxy firms.⁶⁴⁷ Staff found, however, that estimating the current cost of debt would be too imprecise because it would have to account for the many characteristics of debt that affect the yields paid in debt, including maturity, fixed versus variable interest rates, seniority, and callable versus convertible debt.⁶⁴⁸ Staff also reasoned that a more precise calculation might also require knowledge of how much of each type of debt instrument each company uses.⁶⁴⁹ Ultimately, staff concluded that, on average, the embedded cost of debt and the current cost of debt should not differ significantly among the proxy group given declining interest rates and that companies in good financial health are able to refinance, provided there have not been substantial changes in the cost of debt since the last filed SEC Form 10-K.⁶⁵⁰ Therefore, staff recommended estimating the cost of debt based on the embedded cost of debt formula in the Commission's rules, as corrected.⁶⁵¹ We agree with staff's general approach with corrections to the embedded cost of debt formula recommended and noted below.

272. The Commission's rules provide that the cost of debt is calculated as follows:

Embedded Cost of Debt = Total Annual Interest Expense/Average Outstanding Debt

where "Total Annual Interest Expense" is equal to "the total interest expense for the most recent two years for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in § 32.9000" and "Average Outstanding Debt" is equal to "the average of the total debt for the most recent two years for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in section 32.9000."⁶⁵²

273. As noted in the *Staff Report*, this formula overstates the cost of debt because it uses two years' interest expense divided by an average of two years' total debt.⁶⁵³ This would approximately double the embedded cost of debt, resulting in an incorrect input to the WACC. We find that the changes the *Staff Report* made to the definitions used in the equation in the Commission's rules for calculating the embedded cost of debt are correct and will use these revised definitions to estimate the cost of debt for purposes of represcription.⁶⁵⁴ We therefore adopt the following formula from the *Staff Report* for calculating the embedded cost of debt based on the most recent year's interest expense:

Embedded Cost of Debt = Previous Year's Interest Expense/Average of Debt Outstanding at the Beginning and at the End of the Previous Year

⁶⁴⁶ *Staff Report*, 29 FCC Rcd at 7145, para. 47-48; 47 CFR § 65.302.

⁶⁴⁷ *Staff Report*, 29 FCC Rcd at 7145, para. 47.

⁶⁴⁸ *Id.*

⁶⁴⁹ *Id.*

⁶⁵⁰ *Id.*

⁶⁵¹ *Id.*; see 47 CFR § 65.302.

⁶⁵² 47 CFR § 65.302.

⁶⁵³ *Staff Report*, 29 FCC Rcd at 7144, para. 46.

⁶⁵⁴ See Comments of Alexicon Consulting on Behalf of the Rural Broadband Alliance, the Small Company Coalition and the Alexicon Companies, WC Docket No. 10-90, at 8 (filed Jul. 25, 2013) (Rural Company Group *Staff Report* Comments)(agreeing with the revised cost of debt formula proposed in the *Staff Report*).

274. While the *Staff Report* did correctly modify the Commission's existing formula, it failed to implement the revised formula correctly, as USTelecom and AT&T point out.⁶⁵⁵ In particular, staff used 2012 total interest expense in the numerator of the revised formula and the average of outstanding non-current long-term debt at the end of 2011 and 2012 in the denominator.⁶⁵⁶ This calculation understates the total amount of debt in the denominator because it excludes the current portion of long-term debt on which the carriers continue to pay interest.⁶⁵⁷ Thus, the *Staff Report* overstated the cost of debt.

275. USTelecom proposes an alternative approach that eliminates this error and that purports to capture a more forward-looking cost of debt.⁶⁵⁸ In particular, USTelecom proposes that company financial reports (i.e., SEC Form 10-Ks) be used to develop the cost of debt by dividing reported long-term debt interest payment obligations for 2013 by total long-term debt as of December 31, 2012.⁶⁵⁹ As an initial matter, this is not a true "forward-looking" (i.e., a current cost) methodology because it is based on the interest payment obligations on debt that was issued in prior years, not on interest obligations on newly issued debt. For the reasons given in the *Staff Report*, as discussed above, we will not estimate the current cost of debt but will rely on the embedded cost of debt formula, as corrected, in the Commission's rules.

276. In addition, USTelecom's proposed approach uses data from a section of the SEC Form 10-K reports that at least for some carriers does not account for the fact that bonds often are sold at a discount below or a premium above the face value of the bond.⁶⁶⁰ Thus, the numerator in USTelecom's debt calculation is based on interest "payments," which does not account for discounts and premiums, rather than based on interest expense, which does account for discounts and premiums, under generally accepted accounting principles (GAAP). Meanwhile, the debt in the denominator is the principal or payoff amount of the debt, which does not account for discounts and premiums, rather than the amount of debt outstanding, net of discounts and premiums, as recorded on the balance sheet. As a result, the cost of debt under this approach would understate the effective rate of interest for a bond sold at a discount or overstate this rate for a bond sold at a premium. We therefore decline to adopt USTelecom's proposed approach.

277. The Commission's rules further specify that total interest expense be used in the numerator of the embedded cost formula.⁶⁶¹ We interpret the word "total" in the phrase "total interest expense" to refer to the total of both short- and long-term interest expense, not just long-term expense, as was used in this formula in the *Staff Report*. In the *1990 Represcription Order*, the Commission included

⁶⁵⁵ Letter from Robert Mayer, Vice President, Industry and State Affairs, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 7-8 (filed June 20, 2013) (USTelecom June 30, 2013 Ex Parte); AT&T *Staff Report* Reply at 5 (citing USTelecom June 30, 2013 Ex Parte at 7).

⁶⁵⁶ *Staff Report*, 28 FCC Rcd at 7186, Appx. E.

⁶⁵⁷ See USTelecom June 30, 2013 Ex Parte at 7-8.

⁶⁵⁸ *Id.*

⁶⁵⁹ *Id.* Professors Albon and Gibbard suggest that the Commission consider the averaging procedure with respect to the cost of debt noted by AT&T and USTelecom. Albon & Gibbard Report at 2 (citing USTelecom Ex Parte at 7; AT&T Reply at 5). USTelecom notes using a weighted average for calculating the cost of debt. USTelecom Ex Parte at 7. We will not rely on an averaging approach because the cost of debt would be too representative of the RHC Proxies, given that the proposed average is a weighted average that uses market values as weights, and that the market values of the RHC Proxies are so much larger than those of the other firms in the proxy group. There would be little reason to adopt a proxy group that includes firms other than RHCs if we were to adopt that approach.

⁶⁶⁰ See USTelecom June 30, 2013 Ex Parte at 7-8.

⁶⁶¹ 47 CFR § 65.302.

in the numerator of its embedded cost of debt calculation both short- and long-term interest expense.⁶⁶² The Commission's formula for estimating the embedded cost of debt includes the average of total debt in the denominator. We interpret the word "total" in the phrase "total debt" to refer to the total of short- and long-term debt, not just long-term debt, as is used in this formula in the *Staff Report*. It necessarily also includes the current portion of the long-term debt because interest must be paid on the current portion of long-term debt, and this interest would be reflected in the numerator as part of total interest expense. If the interest expense related to the current portion of long-term debt is in the numerator, then to be logically consistent the current portion of long-term itself would have to be included as part of the total debt in the denominator. In the *1990 Represcription Order*, the Commission included in the denominator of its embedded cost of debt calculation both short- and long-term debt and presumably the current portion of the long-term debt.⁶⁶³

278. We include as part of total debt in the denominator of the embedded cost of debt calculation, obligations under capital leases, including the current portion of capital leases. It is not entirely clear whether the Commission included capital leases in its debt calculation in the *1990 Represcription Order*.⁶⁶⁴ Obligations under capital leases, however, were identified at that time as part of total long-term debt in FCC Form M and ARMIS reports.⁶⁶⁵ Likewise, interest expense related to capital leases was included as part of total interest and related items in these reports.⁶⁶⁶ Thus, including obligations under capital leases and the related interest expense in the cost of debt calculation seemingly would have been consistent with the accounting reflected in the FCC Form M and ARMIS reports. We include capital leases here as part of total debt because the leasee assumes some of the ownership risks of the asset that is being leased, while it benefits from the productive deployment of that asset. Moreover, an asset (e.g., the equipment that is being leased) and a liability (the lease payment obligations) are recorded on the leasee's balance sheet, while the depreciation of that asset and the interest portion of the lease payment are reflected as expenses on the income statement.⁶⁶⁷ And as a practical matter, including capital leases in the cost of debt calculation is the easiest way to ensure consistency between total interest expense in the numerator and total debt in the denominator in the cost of debt calculation for each company, and consistency in this calculation among all companies, given the complexities and the lack of standardization among SEC Form 10-K reports.⁶⁶⁸

⁶⁶² See *1990 Prescription Order*, 5 FCC Rcd at 7510-11, paras. 28-34, at 7545-46, Appx. C.

⁶⁶³ *Id.*

⁶⁶⁴ *Id.*

⁶⁶⁵ See *Automated Reporting Requirements for Certain Class A and Tier 1 Telephone Companies (Parts 31, 43, 67, and 69 of the FCC's Rules)*, CC Docket No. 86-182, Order, 4 FCC Rcd 906, 906, paras. 3-5 (1989) (*ARMIS Order*) (modifying the ARMIS reports so carriers may file the public version of a paper ARMIS report as a substitute for Schedules 10 and 11 in their Form M filings); *id.* at 912, Appx., Account No. 4250; *Revision of Annual Report Form M*, Memorandum Opinion and Order, 4 FCC Rcd 4879, DA 89-503, 1989 WL 512551, Attach. B at 35, 38 (rel. May 12, 1989) (*Form M Order*). FCC Form M was an annual reporting requirement for LECs, now discontinued, which required the reporting of a series of financial reports which showed the details of various accounts. Some of these reports were eliminated. The rest were incorporated in the ARMIS 43-02 and 43-08 reports. See *1998 Biennial Regulatory Review – Review of ARMIS Reporting Requirements*, CC Docket No. 98-117, AAD File No. 98-43, Report and Order and Fifth Memorandum Opinion and Order, FCC 99-107, at para. 8 n.13 (rel. June 30, 1999).

⁶⁶⁶ See *ARMIS Order*, 4 FCC Rcd at 906; *id.* at 916, Appx., Account No. 7520; *Form M Order*, DA 89-503, Attach. B at 35, 38.

⁶⁶⁷ See Leonardo R. Giacchino & Jonathan A. Lesser, *Principles of Utility Corporate Finance*, at 106 (Public Utilities Reports, Inc. 2011).

⁶⁶⁸ *1990 Prescription Order*, 5 FCC Rcd at 7510-11, paras. 28-34, at 7545-46, Appx. C. It is also not entirely clear whether, in the 1990 represcription proceeding, the Commission included the amortization of debt issuance expense (also known as debt flotation costs) as part of interest expense in the numerator of the embedded cost of debt calculation, and unamortized debt issuance expense in the denominator. Amortization of debt issuance expense was (continued....)

279. Professor Bowman states that the *Staff Report* is not clear on what is considered debt in its reported capital structure data.⁶⁶⁹ While Bowman is addressing capital structure, his point is also relevant to our discussion of how the cost of debt is calculated because we conclude the specific types of debt included in the debt portion of the capital structure should be consistent with the types of debt for which the cost of debt is calculated, to the extent possible. Bowman posits that all interest bearing debt should be used, arguing that the fact that an interest bearing debt is due in less than one year does not change its characteristic of being debt, while non-interest bearing liabilities should not be classified as debt. Bowman's preferred definition of debt is consistent with the definition reflected in our rules for estimating the embedded cost of debt and with the data the Commission used for this calculation in the 1990 represcription proceeding.⁶⁷⁰ We conclude that, consistent with Professor Bowman's recommendation and our rules, the embedded cost of debt calculation should reflect short- and long-term debt, including the current portion of long-term debt, capital leases, including the current portion of long-term leases, all of the interest expense related to such debt and leases, and should account for premiums and discounts on the long-term debt. Based on data from each proxy's SEC Form 10-K, we revise the embedded cost of debt calculation reflected in the *Staff Report* accordingly.⁶⁷¹

280. In the *Staff Report*, staff estimated the cost of debt for the proxy group of 16 carriers used in that report to be 6.19 percent. Under the revised calculation, we now estimate the embedded cost of debt for the proxy group of 16 carriers used in the *Staff Report* to be 5.87 percent. We also will revise the WACC estimate to reflect this revised cost of debt calculation for each carrier in the proxy group. We also conclude that the definition of debt reflected in the estimate of capital structure should be the same as the one reflected in the estimate of the embedded cost of debt. Accordingly, we revise the estimate of the capital structure developed in the *Staff Report* so that it reflects the same definition that we adopt in this order for estimating the embedded cost of debt. The average of the revised estimate of the capital structure for the proxy group is 54.34 percent debt and 45.66 percent equity.⁶⁷²

b. Cost of Equity

281. The Commission's rules do not specify how the cost of equity is to be calculated,⁶⁷³ and there are several methods that might be used to estimate the cost of equity. The Capital Asset Pricing

(Continued from previous page)

included at that time as part of total interest and related items in the Form M and ARMIS reports. *See ARMIS Order*, 4 FCC Rcd at 906; *id.* at 916, Appx., Account No. 7530; *Form M Order*, DA 89-503, Attach. B at 35, 38. Meanwhile, unamortized debt issuance expense was identified as a noncurrent asset on Form M and ARMIS reports. *See ARMIS Order*, 4 FCC Rcd at 906; *id.* at 910, Appx. Account No. 1407; *Form M Order*, DA 89-503, Attach. B at 35, 38. These amounts typically are not identified separately in SEC Form 10-K. Under GAAP rules in effect in 2012, debt issuance costs should have been recorded as a deferred charge and amortized over the term of the debt, if these costs were material. If the proxy group of carriers did this, then the amount of the amortized debt issuance expense would be included as part of the interest expense reflected on their income statements, and thus would be reflected in the numerator of the formula we use to estimate the embedded cost of debt in this order. Conversely, the unamortized debt issuance expense would not be reflected in the denominator. As a result, our estimate of the embedded cost of debt might be slightly overstated.

⁶⁶⁹ Bowman Report at 4.

⁶⁷⁰ Bowman Report at 4; *1990 Prescription Order*, 5 FCC Rcd at 7510-11, 7545-46, paras. 28-34 & Appx. C.

⁶⁷¹ We used data reflected on the balance sheet and income statements in the companies' SEC Form 10-K reports to estimate the embedded cost of debt. Short- and long-term debt outstanding, including the current portion of long-term debt, and capital leases, including the current portion of long-term leases, are reflected on the balance sheet. Interest expense related to such debt and leases are reflected on the income statement. These debt and interest expense figures should account for premiums and discounts on the long-term debt, in accordance with GAAP.

⁶⁷² *See* Appendix I.

⁶⁷³ 47 CFR § 65.301 ("The cost of equity shall be determined in represcription proceedings after giving full consideration to the evidence in the record, including such evidence as the Commission may officially notice.").

Model (CAPM) is the most widely used method in commerce, while the Commission relied on the Discounted Cash Flow Model (DCF) to calculate the cost of capital in the *1990 Represcription Order*. Both models calculate the cost of equity based upon an analysis of firms' common stock, among other inputs. Staff recommended using both CAPM and DCF to determine the cost of equity, and to create a zone of reasonableness, because both models have different advantages and limitations.⁶⁷⁴

(i) **Capital Asset Pricing Model (CAPM)**

282. CAPM is widely used by financial practitioners to calculate the cost of equity of publicly traded firms.⁶⁷⁵ The required rate of return in CAPM is the sum of the risk free interest rate and an asset beta times a market premium.⁶⁷⁶ The required rate of return in CAPM is:

$$\text{Asset rate of return} = \text{Risk free interest rate} + (\text{Asset Beta} * \text{Market Premium})$$

(a) **Primary Variables in CAPM**

283. *Risk-Free Interest Rate.* The risk free interest rate is the return that investors expect to earn on their money having the certainty that there will be no default. AT&T, the Rural Associations, Alaska Rural Coalition and GVNW assert that the way staff in the *Staff Report* calculated the risk-free rate of return interest rate is artificially low because staff chose a 10-year Treasury interest rate for a single day.⁶⁷⁷ Staff used the then-current 10-year Treasury note, 1.92 percent on March 26, 2013, as the risk free interest rate.⁶⁷⁸ The Alaska Rural Coalition and AT&T assert that use of this interest rate fails to acknowledge that interest rates were at historic lows at this point in time.⁶⁷⁹ In the alternative, AT&T proposes taking an average of 20-year Treasury bond rates over the past six months.⁶⁸⁰ AT&T argues that while use of the most current day's rate of interest might be an unbiased predictor, it has a large variance, and so an average rate calculated over a period such as the past six-months should be used instead.⁶⁸¹ Professor Bowman agrees with staff that "the WACC, and hence the costs of debt and equity, should be a forward looking estimates" and "[c]urrent rates on Treasury bonds reflect future interest rates."⁶⁸² However, Professor Bowman recommends averaging over a reasonably long period of time, perhaps three to six months.⁶⁸³

284. Staff used as the expected risk-free rate the then-current rate of interest at the market's close on March 26, 2013, rather than an historical average of past interest rates calculated over a period of time, a forecast, or a rate based on some other methodology.⁶⁸⁴ Staff reasoned that the current interest rate as of a single day was the best predictor of the future interest rate on government securities incorporating investors' current expectations about the future rate.⁶⁸⁵ Staff noted that the current interest rate frequently

⁶⁷⁴ *Staff Report*, 28 FCC Rcd at 7146, para. 51.

⁶⁷⁵ *Id.* at 7150, para. 62.

⁶⁷⁶ *Id.*, *Id.* at 7150, para. 63.

⁶⁷⁷ AT&T *Staff Report* Reply at 4-5; Rural Associations *Staff Report* Comments at 27; Alaska Rural Coalition *Staff Report* Comments at 10; GVNW *Staff Report* Comments at 6; see USTelecom June 30, 2013 Ex Parte at 5-6.

⁶⁷⁸ *Staff Report*, 28 FCC Rcd at 7151, para. 65.

⁶⁷⁹ See AT&T *Staff Report* Reply at 5 (citing US Telecom June 30, 2013 Ex Parte at 7); Alaska Rural Coalition Comments at 10.

⁶⁸⁰ AT&T *Staff Report* Reply at 5.

⁶⁸¹ *Id.*

⁶⁸² Bowman Report at 5.

⁶⁸³ *Id.*

⁶⁸⁴ *Staff Report*, 28 FCC Rcd at 7151, para. 64-65.

⁶⁸⁵ *Id.* at 7151, para. 65.

is a better predictor of future interest rates than professional forecasts. Staff relied on an efficient market theory, taking as an assumption that bond markets are efficient, meaning that interest rates factor in all publicly-available information, and that current interest rates adjust quickly to reflect new public information as it becomes available.⁶⁸⁶ Staff noted criticisms of the efficient market theory in the *Staff Report*.⁶⁸⁷ Efficient markets do not mean perfect markets—public information that is thought to be reflected in interest rates is not always accurate; bond markets are surprised by and overreact or underreact to new events and new or revised information. At the same time, many practitioners recognize that professional forecasts have value, though these forecasts always will have error, and commenters express a concern that use of a single day's rate as the predictor of future rates ignores the relatively low level of today's interest rates.⁶⁸⁸

285. Accordingly, instead of relying solely on efficient market theory and use of the then-current, March 26, 2013 rate of interest on the 10-year Treasury note as the expected risk-free rate, we conclude that a blended approach taking all these factors into account would be preferable. We therefore derive the risk-free rate of return interest rate by weighting equally: (1) the March 2013 average 10-year rate, thus recognizing in part the tenets of efficient market theory; and (2) the 3.70 percent 10-year forecast for the 10-year Treasury rate by produced by the Survey of Professional Forecasters for the first quarter of 2013 published by the Research Department of the Federal Reserve Bank of Philadelphia, and referenced by the Rural Associations in their comments, thus also recognizing the value of professional forecasts.⁶⁸⁹ We believe that this blended approach reasonably reflects the acknowledged, albeit imperfect, predictive value of current interest rates, and the value of the informed, though imprecise, judgement of professional forecasters.

286. Use of the March 2013 average 10-year Treasury rate as part of this revised approach is consistent with AT&T's and Professor Bowman's suggestions that an average interest rate be used rather than the rate on a single day.⁶⁹⁰ We disagree, however, with their suggestions that this average should be calculated looking back over a period as long as three or six months. We believe that capital markets are reasonably efficient. The primary reason for using a historical average, in our view, is to ensure that any temporary aberration in the interest rate on any given day not be erroneously reflected in the estimate. In other words, the purpose is to smooth out any large, though random, variation that might be in the interest rate on any given day, especially during a period in which markets might be particularly volatile. We believe that a one-month average is long enough to ensure that the estimate does not reflect any such aberration. At the same time, a one month average is short enough that it is reasonably consistent with the notion that bond markets are efficient, so that it reflects reasonably fresh, publicly-available information.⁶⁹¹

287. The March 2013 average 10-year rate is 1.96 percent, slightly higher than the March 26, 2013 interest rate of 1.92 percent used in the *Staff Report*, and also higher than the three-month average of 1.95 percent from January 2013 to March 2013, and the six-month average of 1.83 percent from October

⁶⁸⁶ Morin, *supra* note 635, at 172; Giacchino & Lesser, *supra* note 667, at 250-251.

⁶⁸⁷ See *Staff Report*, 28 FCC Rcd at 7150, para. 62, fn.108 ("The efficient market hypothesis is the foundation upon which the CAPM (and the DCF model) is based, and there are no real alternatives to estimating the cost of equity that are not based on it."); The efficient market hypothesis has sharp critics. See Giacchino & Lesser, *supra* note 667, at 250-251; see also Robert J. Shiller, *From Efficient Markets Theory to Behavioral Finance*, J. Econ. Persp. 83-104 (2003).

⁶⁸⁸ See AT&T *Staff Report* Reply at 5; Alaska Rural Coalition *Staff Report* Comments at 10.

⁶⁸⁹ Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia, <https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters>. Morin states that such a blended approach to estimating the risk-free rate is a reasonable option for a regulator to use. See Morin, *supra* note 635, at 173.

⁶⁹⁰ AT&T *Staff Report* Reply at 5; Bowman Report at 5.

⁶⁹¹ Morin, *supra* note 635, at 172-74, 279-81; Giacchino & Lesser, *supra* note 667, 250-51,

2012 to March 2013. The 3.70 percent 10-year forecast for the 10-year Treasury rate produced by the Survey of Professional Forecasters, the other part of the blended approach to estimating the risk-free rate, is the mean of the forecasts reported by 26 professionals surveyed by the Federal Reserve Bank of Philadelphia.⁶⁹² While we might be able to obtain forecasts of this rate made by other professionals, we rely on this forecast because it has been subject to the scrutiny of the parties to this proceeding, and no such party has given any reason as to why it might be unreliable or should not be used. We conclude that use of this forecast further informs the estimate of the risk-free rate, and is responsive to criticisms that the *Staff Report* failed to account for the relatively low level of today's interest rates. We therefore find that a reasonable estimate of the risk-free interest rate is 2.83 percent, the average of the March 2013 average 10-year Treasury rate and the 10-year forecast for this rate.⁶⁹³

288. *Betas.* A company's beta is the coefficient on market returns resulting from a simple regression of the security's returns on market returns, i.e., it is a measurement of the volatility of a company's stock compared to the volatility of the market.⁶⁹⁴ For purposes of determining a point estimate, staff choose weekly return intervals and an adjustment for the tendency of the regression estimate to revert to the aggregate mean of one.⁶⁹⁵ Professor Bowman raised a concern with including the beta estimate for one of the Publicly-Traded RLEC Proxies, New Ulm, whose beta fluctuates dramatically when measured as daily, weekly or monthly, which has a significant impact, increasing the average beta for this proxy group.⁶⁹⁶ Professor Bowman explains that as the explanatory power of the regression equation approaches zero, the regression coefficient (beta) must also approach zero and posits that betas measured with explanatory power less than five percent, if not higher, are biased downward, and thus he recommends that the Commission exclude New Ulm's beta from the analysis.⁶⁹⁷ We agree with Professor Bowman that the beta for New Ulm may cause a bias in the average beta for the Publicly-Traded RLEC Proxies.⁶⁹⁸ Thus, we will not use the CAPM estimate of New Ulm's cost of equity in developing an overall WACC estimate. Instead, as explained below, we will use a sensitivity analysis to account for New Ulm's cost of equity as part of determining that overall WACC estimate.

289. *Flotation Costs.* The Commission also sought comment in the *USF/ICC Transformation NPRM* on the importance of flotation costs – those costs associated with the issuance of stocks or bonds – for our cost of equity calculations but received little comment.⁶⁹⁹ Staff did not incorporate flotation costs into calculations of the cost of equity and debt meant to be representative of rate-of-return incumbent LECs in general.⁷⁰⁰ Professor Bowman notes that the flotation costs for debt or equity can be

⁶⁹² Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia, <https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters>.

⁶⁹³ We note that the average 10-year Treasury rate for September 2015, the most recent month available, is 2.17%. See Board of Governors of the Federal Reserve System, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm>.

⁶⁹⁴ *Staff Report*, 28 FCC Rcd at 7154-55, para. 76

⁶⁹⁵ *Staff Report*, 28 FCC Rcd at 7187-88, Appx. F & G.

⁶⁹⁶ Bowman Report at 8.

⁶⁹⁷ Bowman Report at 8. Professor Bowman takes issue with Appendices F and G to the *Staff Report* and the "beta estimate for New Ulm which is given as 0.50, but the R2 on that estimate is only 0.0137, and its beta fluctuates dramatically when measured as daily, weekly or monthly." *Id.* Professor Bowman notes that excluding this observation increases the average beta for the RLECs to 0.905 and the overall average to 0.92. *Id.*

⁶⁹⁸ The beta explains almost none of the past variation in the rate of return on New Ulm's common stock (the R-square for the simple regression equation is 0.0137).

⁶⁹⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 18054, para. 1055 (citing NECA et al. *NPRM* Comments, App. C, Statement of Randall S. Billingsley at 7); see *Staff Report*, 28 FCC Rcd at 7147, para. 54 n.93.

⁷⁰⁰ *Staff Report*, 28 FCC Rcd at 7147, para. 54 n.93.

“substantial,” which must be annualized if they are to be included in the cost of debt which in his experience are in the order of 10 to 20 basis points.⁷⁰¹ Professor Bowman notes that there is research showing that the “cost of private debt is marginally higher than for public debt, offsetting the differences in issuance costs” but concludes that because the life of equity is not specified, it is likely to be much smaller and reasonable to ignore.⁷⁰² As explained above, staff did not include bond flotation costs in the cost of debt estimate because staff used an embedded cost of debt approach, including the use of interest expense obtained from the income statements found in SEC Form 10-Ks of the proxy group of firms.⁷⁰³ That interest expense would have included an amount for the expense associated with the amortization of bond flotation costs calculated pursuant to GAAP in effect at the time of the study. Because flotation costs tend to be proportionately small and infrequent, and are primarily relevant for public companies issuing new securities, staff reasoned that they are not significant for the vast majority of rate-of-return incumbent LECs (which are not publicly traded) and were not incorporated into calculations meant to be representative of rate-of-return incumbent LECs in general.⁷⁰⁴ For the reasons explained by staff, we agree with their approach.

290. *Market Risk Premiums.* The market premium is defined in the CAPM as the difference between the return one can expect to earn holding a market portfolio and the risk-free interest rate. In the *Staff Report*, staff concluded that, calculating a historical market premium would be the best approach given the data available to the Commission.⁷⁰⁵ Staff considered whether small capitalization firms such as rural incumbent LECs require an additional risk premium but declined to adopt such an additional premium because the size effect seems to vary over time or even disappears, with common stock returns for smaller firms in the United States not performing significantly better than larger firms from 1980 onward.⁷⁰⁶

291. Several commenters argue in favor of an additional market risk premium based on the size of the firm because they claim small firms face higher risks and illiquidity effects due to not being publicly traded, among other reasons.⁷⁰⁷ Ad Hoc notes, however, that critics of the *Staff Report* fail to provide any actual evidence of higher risk premiums being required of smaller rate-of-return rate-return incumbent LECs than larger publicly-traded incumbent LECs. Ad Hoc also argues that the regulated environment in which rate-of-return carriers operate alters the risks rate-of-return incumbent LECs face, reducing the importance of economies of scale due to targeting prices to a specific rate of return and guarantees of universal service funding.⁷⁰⁸

292. AT&T offers a number of reasons why a size premium should not be considered in the CAPM WACC calculation. AT&T argues that the majority of rate-of-return incumbent LECs are members of the NECA pools and these pools allow its members not only to pool their costs and revenues, but also effectively pool their risks.⁷⁰⁹ AT&T further argues that any risks that the smaller rate-of-return

⁷⁰¹ Bowman Report at 5-6.

⁷⁰² *Id.* at 4-5.

⁷⁰³ *Staff Report*, 28 FCC Rcd at 7145, para. 47-48.

⁷⁰⁴ *Id.* at 7147, para. 54 n.93.

⁷⁰⁵ *Id.* at 7152, para. 69.

⁷⁰⁶ *Id.* at 7154, para. 75.

⁷⁰⁷ See, e.g. Alaska Rural Coalition *Staff Report* Comments at 9; Rural Company Group *Staff Report* Comments at iii-iv, 18-23; Rural Associations *Staff Report* Comments at 28-30; NTTA *Staff Report* Comments at 7-8; Moss Adams Comments *Staff Report* Comments at 22. The Rural Associations argue that “smaller firms are typically less liquid, which means that fewer of their shares trade on a given day and that they have higher bid/ask spreads” which “implies higher equity costs.” Rural Associations *Staff Report* Comments at 29.

⁷⁰⁸ Ad Hoc *Staff Report* Comments, Gately Decl. at 7.

⁷⁰⁹ AT&T *Staff Report* Reply at 8 n.14.

incumbent LECs might face are further reduced by rate-of-return regulation that protects them against under-earning, and the Federal Universal Service Fund and its true-up mechanisms.⁷¹⁰ AT&T adds that some rate-of-return incumbent LECs have established holding company structures and resemble larger firms in terms of market and product diversification.⁷¹¹ Finally, AT&T argues that many of these rate-of-return LECs may be subject to lesser market risks, since they tend to serve more rural and less densely populated areas where competition has been slower to develop or has yet to develop.⁷¹² Professor Bowman favors making an adjustment when appropriate, but notes that it is not clear that firms subject to the cost of equity resulting from represervation are as small as firms that have been shown to manifest the small firm effect, and therefore staff's analysis may not warrant an adjustment.⁷¹³

293. As staff noted in the *Staff Report*, the size effect seems to vary over time or even disappears, with smaller firms in the United States not performing significantly better or worse than large firms from 1980 onward.⁷¹⁴ Accordingly, we conclude that there is insufficient evidence in the record to support a market risk premium specifically for rate-of-return incumbent LECs based on small firm effects. While some of the finance literature and some practitioners might suggest that relatively small and privately-held companies have a higher cost of capital than relatively large companies this is a general proposition based on examinations of different types of firms throughout the economy. As such, this analysis fails to isolate and weigh the specific advantages and disadvantages of a rate-of return incumbent LEC, such as those cited in the record and discussed above, and thus does not necessarily apply to such carriers. Because the record does not demonstrate in a quantifiable way how the rate-of-return incumbent LECs compare to the typical small firm that operates in the U.S. economy as a whole, it is difficult to conclude that an adjustment for firm-size effects to the cost of capital for these carriers is warranted. Moreover, we are aware of no state regulatory agency that has adjusted the allowable rate of return applicable to rate-of-return incumbent LECs on the basis that these incumbent LECs are relatively small, and no commenter has cited to such an instance. Therefore, we decline to adopt a market risk premium based on size effects.

294. Staff estimated the cost of equity using the CAPM with adjusted betas that were calculated using weekly data, along with its estimates for the risk-free rate and market premium, the latter based on the average historical market premium above the 10-year risk free rate for the period 1928-2012 developed by Professor Aswath Damodaran. Staff's calculation of the average of the CAPM cost of equity estimates for the 16 proxy companies is 7.18 percent, which staff determined was low compared to the cost of debt estimates, including estimates for six firms that are below the cost of debt estimates. Estimates of the cost of equity should be significantly higher than the cost of debt because equity is more risky than debt as debtholders are paid before equity holders in the event of financial difficulty, bankruptcy or liquidation. Staff noted that the difference between the arithmetic averages of large company stock returns and the long-term bond returns was 5.7 percentage points (570 basis points) over the period 1926 to 2010,⁷¹⁵ while the difference between the average cost of debt estimate for the 16 proxy companies of 6.19 percent, as compared to the 7.18 percent cost of equity estimate, is only 0.99 percentage points (99 basis points). This suggests staff's cost of debt estimate is too high, or staff's cost of equity estimate is too low, or both—an issue we address below.

⁷¹⁰ *Id.*

⁷¹¹ *Id.*

⁷¹² *Id.*

⁷¹³ Bowman Report at 6.

⁷¹⁴ *Staff Report*, 28 FCC Rcd at 7154, para. 75.

⁷¹⁵ Roger G. Ibbotson, *The Equity Risk Premium*, Res. Found. CFA Inst. 19, Tbl. 1 (2011).

(b) Revised CAPM WACC Estimate

295. We now estimate the CAPM cost of equity using our revised estimate for the risk-free interest rate, 2.83 percent, along with the adjusted betas and market premium used in the *Staff Report*. Given the concern regarding the quality of the beta estimate for New Ulm Telephone (New Ulm) as discussed above, we calculate the average of these estimates based on (1) the proxy group, including New Ulm, (2) the proxy group, excluding New Ulm, and (3) the CAPM estimates for the 15 firms and setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates of the 15 firms. This enables us to measure the sensitivity of the CAPM cost of equity estimates to different cost of equity estimates for New Ulm, and is similar to the sensitivity analysis of estimates for Windstream and ACS above. We do not calculate the average based on setting the estimate of New Ulm's cost of equity equal to its estimate of the cost of debt because the revised CAPM estimate of the cost of equity for New Ulm is greater than its revised cost of debt estimate (as noted above, debtholders are paid ahead of equity holders in a bankruptcy so the cost of equity should exceed the cost of debt).

296. The average of the revised CAPM cost of equity estimates for all 16 firms, including New Ulm, is 8.09 percent. Notably, the cost of equity estimate is less than the cost of equity estimate for just one of the 16 firms, Hawaiian Telecom (7.21 percent versus 7.45 percent). Meanwhile, the difference between the average cost of debt for the 16 proxy companies, 5.87 percent, and this average cost of equity estimate is 2.22 percent (222 basis points), a difference that is still relatively low, but is more than double and is more reasonably in line with expectations of the relationship between debt and equity costs found in the *Staff Report*, which was 0.99 percentage points (99 basis points). The average of the revised CAPM cost of equity estimates for 15 firms, excluding New Ulm, is 8.25 percent. The average of the revised CAPM estimates for the 15 firms and the estimate obtained by setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates is 8.20 percent. Thus, the average of the cost of equity estimates is not significantly affected by these alternative estimates of the cost of equity for New Ulm. Nevertheless, we will account for this sensitivity in developing a reasonable range for CAPM WACC estimates.

(c) CAPM WACC Range

297. We also address the issue of relatively low CAPM cost of equity estimates in determining the reasonable CAPM WACC Range, as did staff in the *Staff Report*. The *Staff Report* developed a range for the market premium used in the CAPM to obtain a reasonable range for CAPM WACC estimates. As a starting point, staff developed a 95 percent confidence interval⁷¹⁶ around the arithmetic average of the difference between the annual return on the S&P 500, and the return on the 10-year U.S. government bond including capital returns, based on statistics developed by Professor Damodaran.⁷¹⁷ This average is 5.88 percent (and is the risk-premium used in the CAPM in the above calculations), and a 95 percent confidence interval around this average is 1.22-10.54 percent. Staff noted that it is common to rely on as long a time series as possible when calculating the average historical market premium,⁷¹⁸ and that

⁷¹⁶ See *Staff Report*, 29 FCC Rcd at 7153, para. 72. Here we refer to the estimated standard deviation of the estimated mean market premium. In other words, we refer to the sample standard deviation of the observed distribution of market premiums, divided by the square root of the number of years (minus 1) for which we have data, i.e., the square root of $84 - 1 = 83$. Because the distribution of the estimated mean approaches a normal distribution as the sample size grows, for a sample of this size, we can expect that around 95% of the time the mean market premium will be within two standard deviations of the estimated mean of 5.88%. See *id.*

⁷¹⁷ The standard deviation of the market premium was 2.33%. *Staff Report*, 28 FCC Rcd at 7153, para. 72 & n.131 (citing Aswath Damodaran, Professor of Finance at the Stern School of Business at New York University, Annual Returns on Stock, T.Bonds and T.Bills: 1928 – Current, http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html).

⁷¹⁸ Morin, *supra* note 635, at 157; Giacchino & Lesser, *supra* note 667, at 235-236.

Professor Damodaran's historical average of 5.88 percent lies well within these ranges identified in a number of different surveys.⁷¹⁹ Staff next truncated the lower end of the confidence interval to ensure that every carrier's cost of equity estimate exceeded its cost of debt estimate, recognizing the basic economic principle that the cost of equity has to be higher than the cost of debt because equity is riskier than debt. Recognizing that it is necessary to ensure that every carriers' cost of equity is not less than their cost of debt staff found that the reasonable range for an estimate of the WACC for the proxy firms is between 7.39 and 8.58 percent.⁷²⁰

298. The Rural Associations argue that staff's truncation of the confidence interval renders staff's associated cost of capital recommendations unreliable.⁷²¹ We disagree. First, we view the range between 1.22-10.54 percent as an objective and *unconditional* range for the market risk premium. It reflects the variance in statistical terms in the market premium over many years and many different business cycles. We also view the interval, as adjusted by staff's truncation, as a *conditional* market premium, one that recognizes the reality of current capital market conditions, in particular, today's relationship between the cost of debt and the cost of equity, and the basic principle that the cost of equity always will exceed the cost of debt. Increasing the lower bound as staff did also is consistent, though not necessarily in a precise quantifiable way, with Professor Bowman's argument that based on his own research and that of others, the expected risk premium is inversely correlated with the level of interest rates.⁷²² Thus, when interest rates are low, as they are today, the expected risk premium is higher. Also, use of the higher lower bound for the risk premium should minimize any concerns that the approach we take in this order to develop a risk free rate for use in the CAPM does not adequately acknowledge today's low level of interest rates.⁷²³

299. The Rural Associations observed and staff itself acknowledged that this adjustment to the 95 percent confidence interval is not precise.⁷²⁴ As staff noted, to the extent our estimates of the cost of debt are too high, this choice would bias upward our estimates of the return on equity. Because the cost of equity typically would materially exceed the cost of debt, however, assuming a cost of equity that equals the cost of debt tends to bias our estimates downwards.⁷²⁵ It is not clear which of these two offsetting biases is likely to be larger. In practice, this is not a significant concern because this adjustment

⁷¹⁹ *Staff Report*, 28 FCC Rcd at 7153, para. 72 & n.131 (citing Aswath Damodaran, Professor of Finance at the Stern School of Business at New York University).

⁷²⁰ Professor Bowman argues that the variables in the CAPM other than the risk-free rate are estimated with imprecision. Staff, however, did not vary the estimate of beta as part of establishing a reasonable range for the cost of equity. See *Staff Report*, 29 FCC Rcd at 7157, para. 86. Staff noted that the assumptions behind the various beta estimates of its set of representative companies do not lead to substantial changes in the average WACC. *Id.* at 7157, para. 86 n.150. For example, staff stated that if it fixed the market premium at the average historic market rate of 5.88% and looked at the upper and lower CAPM bounds created by using different beta estimation methods (that is, its four versions of the betas plus betas provided by external analyst services, the resulting WACC range runs from 6.28% to 6.82%. *Id.* In contrast, using its preferred betas (weekly data and adjusted towards one), and allowing the market premium to vary across the range reported in financial textbooks of 3-10% which is narrower than the historical range it also considered, gives a WACC range of 5.56% to 8.36%. We agree with that analysis and the decision to focus on developing a proper upper and lower bound to develop a range for the CAPM WACC estimates. See *id.*

⁷²¹ Rural Associations *Staff Report* Comments, Appx. A, Billingsley Stmt. at 16-17; see *Staff Report*, 29 FCC Rcd at 7157-59, paras. 86-92.

⁷²² Bowman Report at 7-8.

⁷²³ See AT&T *Staff Report* Reply at 5 (citing US Telecom June 30, 2013 Ex Parte at 7); see Alaska Rural Coalition *Staff Report* Comments at 10.

⁷²⁴ Rural Associations *Staff Report* Comments, Appx. A, Billingsley Stmt. at 16-17; see *Staff Report*, 29 FCC Rcd at 7157-59, paras. 86-92.

⁷²⁵ *Staff Report*, 29 FCC Rcd at 7157-59, paras. 83-92.

affects only the lower bound, not the upper bound of the CAPM WACC range of reasonable estimates. As long as we do not select an estimate that is at or near the bottom of this range, that estimate and the resulting allowable rate of return should be reasonable. Moreover, we also have the DCF WACC range of reasonable estimates on which to rely. The WACC and DCF have different strengths and weaknesses, and we reduce the likelihood of error by developing WACC estimates using both models. As long as we also select an estimate that is consistent with the DCF WACC range, then that estimate should be a reasonable estimate.

300. We now estimate new lower and upper bounds for the range of reasonable WACC CAPM using our revised estimate for the risk-free rate, 2.83 percent, along with the adjusted betas and the staff's approach for establishing a range for the market premium. We develop different lower and upper bounds based on: (1) the proxy group, including New Ulm, (2) the proxy group, excluding New Ulm, and (3) the CAPM estimates for the 15 firms and setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates of the 15 firms. Taking this approach, we now find that the range of reasonable WACC CAPM estimates is 7.12-8.83 percent if the proxy group includes New Ulm; 7.24-9.01 percent if it excludes New Ulm; and 7.17-8.92 percent based on setting the cost of equity for New Ulm equal to its cost of debt estimate plus the average of the differences between the cost of debt and equity estimates of the 15 firms. The highest of upper bound values and the lowest of the lower bound values, provide an overall range of 7.12-9.01 percent.

301. Professor Bowman argues that the CAPM WACC range should be at least three percentage points (300 basis points), if not higher, given the uncertainty with which CAPM input values are estimated (our range is 1.89 percentage points or 189 basis points).⁷²⁶ However, we find our CAPM WACC range, 1.89 percentage points (189 basis points), is sufficiently large because that range reflects the lower and upper bounds of our market risk premium. The lower bound of the market premium is constrained by our estimates of the cost of debt, while the upper bound is at the top of the ranges used by most practitioners.⁷²⁷ Absent the lower bound constraint, the range would have been much larger reflecting greater uncertainty in the market premium estimate, but including that lower portion and allowing that uncertainty potentially to be reflected in the cost of equity estimates and thus the WACC estimates would be contrary to economic theory. Furthermore, we have DCF WACC estimates on which to rely, in addition to WACC CAPM estimates, as mentioned above.⁷²⁸

(ii) Discounted Cash Flow (DCF) Model

302. In addition to calculating the cost of equity using CAPM, in the *Staff Report* staff also calculated the cost of equity using the constant-growth DCF model based upon four different data sources used in the 1990 prescription proceeding.⁷²⁹ This model incorporates in its calculation of the cost of equity a constant growth rate, which staff calculated using generally available earnings per share (EPS) growth forecasts instead of dividend per share growth forecasts, which are not generally available. Industry analysts routinely rely on ESP forecasts as dividends tend to grow as earnings grow.⁷³⁰ The most

⁷²⁶ Bowman Report at 8-9.

⁷²⁷ See Pratt and Grabowski, *supra* note 635, at 155-158; Morin, *supra* note 635, at 157-162.

⁷²⁸ Moreover, Albon and Gibbard found that the overall WACC range in the *Staff Report*, which is similar in size to the overall range and was developed using a similar process to the one used here, flows easily from the data (with the possible exception of averaging the cost of debt based on market values, which we address above). Albon & Gibbard Report at 2; see *supra* section III.B.5.

⁷²⁹ *Staff Report*, 7159-60, paras. 93-94; see *1990 Represcription Order*, 5 FCC Rcd at 7515, para. 67.

⁷³⁰ *Id.* at 7160-61, para. 95. Professor Bowman noted that the staff's DCF approach is fairly common, but that the four estimates of earnings per share (EPS) growth forecasts should be disclosed. Bowman Report at 9. However, in response to a request from NASUCA, the Bureau submitted into the record the data used to estimate the cost of equity using the DCF model, including EPS growth forecasts. *Wireline Competition Bureau Provides Requested*

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widely used modified version of the general DCF model, the constant growth, or standard, DCF model, calculates the cost of equity as:

$$\text{Cost of Equity} = (\text{Dividends per Share}_1 / \text{Price per Share}_0) + g$$

where Cost of Equity = cost of common stock equity; Dividends per Share₁ = annual dividends per share in period 1; Price per Share₀ = price per share in period 0; g = constant growth rate in dividends per share in the future; and D₁ = (1 + g) times D₀, the annual dividends per share in period 0.⁷³¹

(a) **DCF Cost of Equity Results**

303. Staff estimated the cost of equity using the constant-growth DCF model for each of the 11 proxy firms that pay common stock dividends and had readily-available, long-run growth rate forecasts.⁷³² To do this, staff identified the low and the high estimates among the estimates available from four different sources for each firm, determined the midpoint between these two estimates, and used this value as the growth rate in the DCF model for each firm. Based on this analysis, staff determined that the average cost of equity estimate for the 11 firms was 9.90 percent.

304. Staff found, however, that the DCF analysis did not appear to produce reliable estimates for Windstream and ACS. The published growth rates for these two firms were low, and use of these rates in most cases resulted in cost of equity estimates that were less than the cost of debt estimates. Staff reasoned that these results are questionable because equity is more risky than debt; no rational investor would ever purchase any firm's common stock if that firm's debt is expected to provide a higher rate of return. Staff noted that the Commission had applied a screen designed to remove from consideration those firms for which the cost of debt exceeded the cost of equity when developing estimates of the cost of equity in the *1990 Represcription Order*.⁷³³

305. Staff therefore analyzed the sensitivity of the average of the cost of equity estimates to the estimates for Windstream and ACS.⁷³⁴ First, staff excluded Windstream and ACS from the sample, leading to an average cost of equity for the nine remaining firms of 11.25 percent, as compared to the average of 9.90 percent when these two firms were included.⁷³⁵ Second, staff set the cost of equity estimate equal to the cost of debt estimate for the two firms, leading to an average cost of equity estimate of 10.54 percent for the 11 firms.⁷³⁶ Third, staff calculated the average difference between the cost of equity estimates and the cost of debt estimates for the other nine firms, and added this increment to the cost of debt estimates for Windstream and ACS, to obtain equity estimates for these two firms, leading to an average cost of equity estimate of 11.58 percent for the 11 firms.⁷³⁷ We agree with staff's conclusion that where the use of these growth rates produces cost of equity estimates that have no economic meaning, such estimates should be omitted or, at the very least, the impact of including such questionable equity costs estimates on the overall estimate must be taken into account.

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Data Used in Rate of Return Represcription Staff Report, WC Docket No. 10-90, Public Notice, 28 FCC Rcd 8265 (WCB 2013).

⁷³¹ *Staff Report*, 28 FCC Rcd at 7160, para. 94.

⁷³² *Id.* at 7193, Appx. J.

⁷³³ *Id.* at 7163, para. 101 & n.178. Some parties in the 1990 prescription proceeding argued that companies whose cost of equity estimates did not exceed their cost of debt should be excluded from the equity analysis. In response, the Commission removed from consideration companies whose cost of equity estimates were below the yield on single A corporate bond ratings. See *1990 Represcription Order*, 5 FCC Rcd at 7513-14, paras. 55-58.

⁷³⁴ *Staff Report*, 28 FCC Rcd at 7162-63, para. 101.

⁷³⁵ *Id.* at 7165, paras. 103-4.

⁷³⁶ *Id.* at 7165, para. 105.

⁷³⁷ *Id.* at 7165, para. 106.

306. No party challenges staff's DCF methodology. We therefore adopt the approach applied in the *Staff Report* to developing estimates for the cost equity based on the DCF model, including the use of sensitivity estimates for Windstream and ACS.

307. Given the revisions we make above to the estimation of total debt outstanding and interest expense in the *Staff Report*, and therefore to the estimates of the cost of debt, the results of the above sensitivity analysis change slightly as follows. First, excluding Windstream and ACS from the sample, the average cost of equity for the nine remaining firms remains 11.25 percent, as compared to an estimate of 9.90 percent when these two firms are included, as these numbers are unaffected by the cost of debt estimates. Second, setting the cost of equity estimate equal to the cost of debt estimate for the two firms now leads to an average cost of equity estimate of 10.47 percent for the 11 firms. Third, calculating the average difference between the cost of equity estimates and the cost of debt estimates for the other nine firms, and adding this increment to the cost of debt estimate for Windstream and ACS, to obtain equity estimates for these two firms, now leads to an average cost of equity estimate of 11.54 percent for the 11 firms.

(b) DCF WACC Range

308. Based on this DCF analysis, we find that the lower bound of a reasonable cost of equity estimate is 10.47 percent, while the upper bound is 11.54 percent. As a rough check on the reasonableness of these upper and lower bound cost of equity estimates, similar to the check in the *Staff Report*, we note that the difference between the average cost of debt for the 11 firms, 5.88 percent, and the lower bound cost of equity estimate, 10.47 percent, is 4.59 percentage points (or 459 basis points). Meanwhile, the difference between the average cost of debt for these firms and the upper bound cost of equity estimate, 11.54 percent, is 5.66 percentage points (or 566 basis points). By comparison, these lower and upper bound debt-equity differences are somewhat greater than the 4.39 percentage point (439 basis points) difference between the cost of debt, 8.8 percent, and the cost of equity, 13.19 percent, on which the Commission's current 11.25 percent authorized rate of return is based. And these lower and upper bound equity-debt estimate differences are somewhat less than the average difference between the large company stock return, *i.e.*, S&P 500 companies, and the long-term corporate bond return, from 1926-2010, 5.7 percent (570 basis points).⁷³⁸ Neither of these comparisons suggests in a compelling way that our lower and upper bound estimates for the cost of equity are unreasonable.

309. Based upon these slight modifications to DCF analysis presented in the *Staff Report*, we find that a reasonable lower and the upper bound DCF WACC Range is 8.28 percent to 8.57 percent. As in the *Staff Report*, this range is based on the three average WACC estimates found by using: (1) DCF estimates for the nine firms excluding Windstream and ACS; (2) DCF estimates for the nine firms plus the first of the two sensitivity cost of equity estimates described above for these two firms (equity estimates for each equal to debt estimates); and (3) DCF estimates for the nine firms plus the second sensitivity cost of equity estimates described above for these two firms (debt estimates for each plus the average of the debt-equity estimate differences found for the other nine firms). In each case, the growth rates used in the DCF are the mid-point growth rates. In each case, WACC estimates are also based on cost of debt and capital structure estimates that reflect the modifications discussed above to the estimation of total debt outstanding and interest expense.

(iii) Free Cash Flow Model

310. The Rural Associations estimate the WACC for a rate-of-return incumbent LEC by dividing an estimate of free cash flow (FCF) by an estimate of firm value, based on rate-of-return incumbent LEC data.⁷³⁹ GVNW and TCA supported the Rural Associations' FCF approach.⁷⁴⁰ While the

⁷³⁸ Ibbotson, *supra* note 715, at 19, Tbl. 1.

⁷³⁹ The Rural Associations relied on confidential data submitted to the Commission in WC Docket No. 01-92. See Rural Associations *Staff Report* Comments at 5-6 & Appx. B at 4 & n.12 (citing Letter from Regina McNeil, Vice
(continued....)

Rural Associations' approach differs from the standard approach that we use here to estimate the WACC, and is not set out in our rules, we cannot say, based on the record that this is an unacceptable approach, at least in concept.⁷⁴¹ We are reluctant to dismiss too quickly any approach that could potentially aid the Commission now or in the future to produce better WACC estimates, especially given the difficulty to estimate the WACC for privately-held rate-of-return incumbent LECs. While we do not find this approach to be unacceptable in concept, we do find flaws in the way that it is implemented by the Rural Associations.⁷⁴² Thus, we reject the Rural Associations' estimates.

311. The Rural Associations base firm value, as reflected in the denominator of its WACC formula, on per connection sales prices for rate-of-return and price cap incumbent LEC exchanges for the period from 2008-2012.⁷⁴³ The Rural Associations develop a range of WACC estimates by varying its estimates of firm value.⁷⁴⁴ We find that this sample of prices is too small, and too many of its prices are for sales that occurred too long ago to provide a reliable basis for estimating firm value for a typical rate-of-return incumbent LEC. In particular, the sample included only one sale price for each year from 2010 to 2012.⁷⁴⁵ One observation per year, for the most recent three years, is far too few to obtain reliable firm valuations for these years, especially given the large variation in sale prices since 2008 (\$1,053 to \$3,205 per connection) and since 2003 (\$1,013 to \$8,000 per connection).⁷⁴⁶ As the perceived value of different exchanges varies significantly, as this price variation demonstrates, the value of the information reflected in one observation a year is of limited value for estimating the value of these firms today. Nor does one observation a year provide a strong basis for concluding that the level of these observed prices continues a trend from prior years, or that such a trend reliably could be used to estimate a firm's value today. While the sample included five sales prices for both 2008 and 2009, not only is this number of observations too

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President of Legal, General Counsel and Corporate Secretary, NECA, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-92 (filed Feb. 29, 2012)); *see also* NECA et al. *NPRM* Comments at 57-60.

⁷⁴⁰ GVNW *Staff Report* Comments at 3; GVNW *Staff Report* Reply at 8; TCA *Staff Report* Comments at 5; TCA *Staff Report* Reply at 6.

⁷⁴¹ *See* Ad Hoc *Staff Report* Reply, Appx. B at 3. Ad Hoc notes that the Rural Associations' approach is not standard practice as FCF is not used as a tool to estimate a firm's WACC but rather the value of firm and, therefore, would require an amendment to Part 65 of the Commission's rules. *Id.*

⁷⁴² The Rural Associations' formula for calculating WACC is $WACC = FCF/Value$, which is derived from the cash-flow perpetuity formula, $Value = FCF_{t=1}/(WACC-g)$, where g is the growth rate of FCF forever. Rural Associations *Staff Report* Comments, Appx. B at 3. While we do not take issue with the Rural Associations' approach in concept, we do question the feasibility of this approach for developing WACC estimates for either rate-of-return or price cap incumbent LECs. This approach relies on estimates of FCFs which include capital expenditures. Incumbent LEC investments tend to be sporadic, occurring periodically (not in small increments continuously over time), but requiring large capital outlays at the time these investments are made. As the full amount of the capital expenditure for these sporadic investments is included in the FCF estimates at the time these investments are made, FCFs are likely to vary considerably from year to year. In turn, this variation is likely to be reflected in the WACC estimates, thereby diminishing the reliability of these estimates. Moreover, the Rural Associations omit the growth factor that otherwise would be included in FCF WACC formula based on its unsupported observation that revenue requirement growth over an unspecified three-year period is only .01%. Rural Associations *Staff Report* Comments, Appx. B at 3. The revenue requirement, however, differs significantly from FCF. FCF includes capital expenditures when they are made, while the revenue requirement reflects these capital expenditures as a depreciation expense over time. Also, the FCFs are supposed to be expected FCFs, and the future might differ considerably from the recent past. As a result, we find that if the Rural Associations approach were to be adopted, it would require additionally estimating growth (g , in the formula) which too is difficult to do in practice.

⁷⁴³ *See* Rural Associations *Staff Report* Comments, Appx. B at 7, Fig. 2 & Attach. 1.

⁷⁴⁴ *Id.*

⁷⁴⁵ *Id.*

⁷⁴⁶ *See id.*

small to estimate firm value with a high level of confidence, especially given the variation in prices, but these prices are too old to provide reliable estimates of firm value today.⁷⁴⁷

312. The Rural Associations use the FCF WACC formula to develop a range of WACC estimates based on a sample of 633 rate-of-return incumbent LECs.⁷⁴⁸ Staff took issue with NECA et al.'s use of the median value of the WACC estimates for these rate-of-return incumbent LECs to establish a range for the WACC.⁷⁴⁹ In response, the Rural Associations, including NECA, recalculated its analysis using the average value weighted by access connections.⁷⁵⁰ This resulted in a large decrease in the range of WACC estimates (11.75 to 23.49 percent versus 8.69 percent to 17.39 percent).⁷⁵¹

313. Given that large decrease, we now take a closer look at the details of the Rural Associations' analysis. Based on our review, there is an enormous variance among the 633 rate-of-return incumbent LEC WACC estimates that the Rural Associations developed. There are many very high and very low WACC estimates. For example, focusing on the estimates based on the Rural Associations' midpoint valuation number, \$1,800 per line, the values of the ten lowest estimates are: -271, -277, -305, -308, -320, -372, -429, -489, -631, and -862 percent. The values of the ten highest estimates, given this midpoint valuation, are: 121, 123, 124, 147, 155, 187, 201, 296, 393, and 838 percent. These high and low numbers, and there are more than just these 20, are implausibly high and low. We are unaware of any wave of bankruptcies among the rate-of-return incumbent LECs, for as long as the Commission's allowable rate of return of 11.25 percent has been effect, and none of the commenters has suggested that the allowable rate of return for these carriers should be as high as the Rural Associations' estimates. Similarly, a negative expected rate of return, i.e., cost of capital, makes no economic sense.

314. Statistically speaking, and again focusing on the estimates based on the Rural Associations' midpoint valuation number, the median value WACC is 15.66 percent, the weighted average is 11.59 percent, the simple average is 8.64 percent, and the standard deviation relative to the simple average is 83.18 percent, a figure that is approximately 10 times greater than the simple average. Given this dispersion and the implausibly high and low WACC estimates, none of the typical measures of central tendency, i.e., the median, weighted average, or simple average, would provide an overall

⁷⁴⁷ We also note that as part of its analysis of value, the Rural Associations calculate separate weighted average sales prices, based on connections, for the five exchanges sold in 2008 and 2009. Rural Associations *Staff Report* Comments, Appx. B, at 7, Fig. 2. The use of weighted averages for each of these two years is inappropriate given that there were so few sales, and significant variation in the prices and the size of the transactions (measured in terms of the number of connections). One sale accounts for about 90% of the connections in 2009, and thus has a weight of about 90% in the weighted average for that year, and one accounts for about 99% of the connections in 2008, and thus has a weight of about 99%. See *id.*, Attach. at 1. As a result of using weighted averages, almost none of the information reflected in the value of the other four sales in each year is accounted for. In effect, there is one observation for each of these two years, not five. The weighted averages are significantly lower than the simple averages for these two years (\$1,462 per connection versus \$2,079 per connection in 2009, and \$1,824 per connection versus \$2,114 per connection in 2008), and the lower prices support a lower valuation and a higher WACC under the Rural Associations' approach. We acknowledge that the Rural Associations relied on a range of sales prices, not simply the weighted averages, but to the extent that it relied on the weighted averages to establish the range, the range is too low, and the Rural Associations did not explain precisely how it determined the range. See *id.*

⁷⁴⁸ We note that there is an apparent error in the Rural Associations' analysis. The Rural Associations' price estimates are per connection estimates, but these estimates appear to be multiplied only by the number of switched access lines, not a larger number for connections, to determine firm values. At the same time, the FCFs include all regulated revenues, including special access revenues. As a result, the WACC estimates based on FCF divided by firm value are understated. See Rural Associations *Staff Report* Comments, Appx. B, Attach. 1.

⁷⁴⁹ See *Staff Report*, 29 FCC Rcd at 7147-48, para. 56 n.94 (citing NECA et al. *FNPRM* Comments at 59).

⁷⁵⁰ See Rural Associations *Staff Report* Comments, Appx. B at 6-7.

⁷⁵¹ *Id.*

estimate, or even a range of overall estimates, on which we could rely. There would seem to be too strong of likelihood of large error in many of the individual estimates, and we cannot simply assume that these errors would offset each other by averaging the WACC estimates, or rely on the use of the middle-value estimate (i.e., the median) to remove the impact of these errors.⁷⁵² Thus, we reject the Rural Associations' WACC estimates.

c. Cost of Preferred Stock

315. The Commission's rules specify that the WACC calculations incorporate the cost of preferred stock which is stock that entitles its holders to receive a share of corporate assets before common stockholders do, in the event of liquidation of the firm, and offers other benefits, such as priority when dividends are paid.⁷⁵³ Staff recommended in the *Staff Report* that the Commission waive or eliminate the requirement to include the cost of preferred stock in the WACC calculation because the cost of preferred stock is either not available to us or not publicly reported.⁷⁵⁴ This approach is consistent with the Commission's 1990 represcription which did not factor in the cost of preferred stock.⁷⁵⁵ In the *Staff Report*, staff explained that including the cost of preferred stock would not significantly alter the WACC calculation because the proxy firms do not typically raise capital through the issuance of preferred stock and that preferred stock is only a small share of the capital structure for the proxies that have such stock.⁷⁵⁶ We agree for the reasons articulated by staff explained above. Further, no commenters filed in opposition to staff's approach. Accordingly, we find good cause exists to waive the requirement to calculate the WACC based on the cost of preferred stock.⁷⁵⁷

d. WACC Results

316. Appendices J & K to this Order shows the WACCs resulting from using both CAPM and DCF, together with the component values of each model and the estimates of the cost of debt and capital structure.

e. Establishing the WACC Zone of Reasonableness

317. In determining the authorized rate of return, the Commission's starting point is to establish a zone of reasonable financial model-based estimates of the overall WACC. After identifying this WACC zone of reasonableness, the Commission may determine, based on policy considerations, where to prescribe the unitary rate of return.⁷⁵⁸ To determine a WACC zone of reasonableness, staff recommended comparing the range of WACCs produced when the cost of equity is determined using

⁷⁵² We note that the range of WACC estimates is 11.75 to 23.49% based on the median; 8.69 to 17.38% based on the weighted average; and 6.48 to 12.96% based on the simple average. As stated above, none of the typical measures of central tendency is likely to produce a reliable estimate. If we were to choose from among these statistical measures, however, we tend to agree with Ad Hoc's observation that each rate-of-return incumbent LEC operates independently of the others, and so the simple, not the weighted average should be used. See Ad Hoc *Staff Report* Comments, Appx. A, Gately Decl. at 4. Again, we would only use this average after dealing with the errors and uncertainties that seem to be reflected in the individual WACC estimates for the companies in the Rural Associations' sample.

⁷⁵³ 47 CFR §§ 65.300, 65.303; *Staff Report*, 29 FCC Rcd at 7168, para. 115.

⁷⁵⁴ *Staff Report*, 29 FCC Rcd at 7168, para. 115 & n.186 (citing SNL Kagan, <http://www.snl.com/Sectors/Media/Default.aspx>).

⁷⁵⁵ See generally 1990 Represcription Order.

⁷⁵⁶ *Staff Report*, 29 FCC Rcd at 7168, para. 115.

⁷⁵⁷ See 47 CFR § 65.300, 65.303; see 47 CFR § 1.3; see also *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

⁷⁵⁸ 1990 Represcription Order, 5 FCC Rcd at 7508, para. 7.

CAPM with varying market premiums, and the range produced when the cost of equity is determined using DCF.⁷⁵⁹

318. We find above that a reasonable range for CAPM WACC estimates is 7.12 to 9.01 percent, while a reasonable range for DCF WACC estimates is 8.28 percent to 8.57 percent. Taken together, the overall range for reasonable WACC estimates is 7.12 to 9.01 percent, if there is no reason to believe that either model provides better estimates.⁷⁶⁰ The record is critical of the CAPM analysis in the *Staff Report*, while the DCF analysis is largely unchallenged. In response to these criticisms, we adjusted the CAPM analysis to produce more reliable estimates. In particular, we revise the estimate of the risk-free rate, and account for what might be an unreliable beta estimate for the proxy New Ulm. Nevertheless, given the record, we would be reluctant to select a rate of return that is below the DCF WACC range. The bottom of the WACC range relies on a truncated confidence interval that might not reflect a precise accounting of the premium in terms of the rate of return that equity holders require in comparison to debtholders. Even without this concern and that record, it would be difficult to prescribe a rate of return below the WACC DCF range given that both the DCF and the CAPM have different strengths and weaknesses and the value of performing both analyses is that these models have the potential to provide corroborating evidence.

f. Prescribing a New Authorized Rate of Return

319. The reasonable range of WACC estimates discussed above are based on the cost of capital which serves as a useful and reliable starting point in rate of return represcription.⁷⁶¹ The Commission, however, may consider other relevant factors as well.⁷⁶² It is well established that rate of return prescription under the Act's "just and reasonable" standard requires a balancing of ratepayer and shareholder interests.⁷⁶³ A rate-of-return carrier must be allowed the opportunity to earn a return that is high enough to maintain the financial integrity of the company and to attract new capital.⁷⁶⁴ At the same time, to be reasonable, the rate of return must not produce excessive rates at the expense of the ratepayer.⁷⁶⁵ Courts have recognized that there is a zone of reasonableness within which reasonable rates may fall, and that the regulatory agencies are entitled to exercise judgment in selecting a rate of return

⁷⁵⁹ *Staff Report*, 28 FCC Rcd at 7168, para. 117. Staff found that DCF did not produce reliable estimates for Alaska Communications Systems Group (ACS) and Windstream Corporation (Windstream), for which published growth rates were low, and use of these rates in most cases resulted in cost of equity estimates that were less than the cost of debt estimates for these two firms, and in one case a negative cost of equity estimate for Windstream. As the staff explained, the latter results make no economic sense. As equity is more risky than debt, no rational investor would ever purchase any firm's common stock if that firm's debt is expected to provide a higher rate of return. And no investor would ever pay a positive price for a common stock on which the expected rate of return is less than zero. *Id.* at 7162-63, para. 101.

⁷⁶⁰ The *Staff Report* determined a zone of reasonable WACC estimates ranging from 7.39% to 8.72%. *Staff Report*, 28 FCC Rcd at 7124, Exec. Summary. Professor Bowman found this range to be "excessively narrow." Bowman Report at 9. Professor Bowman notes that given that every variable in the CAPM estimate of WACC, with the exception of the risk free rate, has "very substantial estimation error," Professor Bowman recommends that a reasonable range for an estimate of WACC would span at least three%, if not higher. *Id.* Albon and Gibbard note that the magnitudes of this zone are appropriate but will vary over time according to whether it is a low interest rate or a high interest rate environment and the level of credit spreads. Albon & Gibbard Report at 3.

⁷⁶¹ See, e.g., *Mobil Oil Corp. v. FPC*, 417 U.S. at 305-06, 316, 94 S. Ct. at 2344-45, 2349; *FPC v. Hope Natural Gas Co.*, 320 U.S. at 602-03, 64 S. Ct. at 287-88.

⁷⁶² See, e.g., *Pennzoil Producing*, 439 U.S. at 518, 99 S. Ct. at 771; *Mobil Oil*, 417 U.S. at 308, 94 S. Ct. at 2345.

⁷⁶³ 1990 Prescription Order, 5 FCC Rcd at 7532, para. 213 (citing *FPC v. Hope Natural Gas Co.*, 320 US 591, 603 (1944)).

⁷⁶⁴ *Bluefield Water Works v. PSC*, 262 U.S. 679 (1923).

⁷⁶⁵ See *Farmers Union Central Exchange, Inc. v. FERC*, 734 F.2d 1486, 1502 (D.C.Cir.1984) (*Farmers Union*).

within that zone.⁷⁶⁶ In general, the zone of reasonableness balances financial interests of the regulated company and relevant public interests.⁷⁶⁷ The Commission has substantial discretion when setting the authorized rate of return, and may consider a broad array of evidence and methodologies in prescribing the authorized rate of return.⁷⁶⁸ The Commission may also consider non-cost policy considerations in setting the rate of return.⁷⁶⁹

320. We are particularly mindful of the economic impact represcription will have on rate-of-return incumbent LECs. As Professor Bowman notes, companies subject to regulation face regulatory risk which increases the cost of capital.⁷⁷⁰ In this regard, we agree with Professor Bowman's argument that as a consequence of the asymmetry of social costs and benefits, and the uncertainties in the estimates of the true cost of capital, we should err on the high side when establishing the rate of return zone of reasonableness to minimize expected losses in social welfare through investment effects.⁷⁷¹ Accordingly, expanding the zone of reasonableness above the top of the reasonable WACC estimates is supported in the record.

321. We conclude that we should expand the upper end of the rate of return zone of reasonableness beyond the WACC estimates based on policy considerations and adopt the rate of return from the upper end of this zone. First, by expanding the zone of reasonableness, we provide an additional cushion for rate-of-return incumbent LECs that may have a relatively high cost of capital compared to our proxies. There are hundreds of rate-of-return incumbent LECs. Some will have a relatively high and some a relatively low cost of capital. At the same time, we adopt an authorized rate of return that applies to all of these carriers. To maximize the likelihood that the unitary rate of return is fully compensatory, even for firms with a relatively high cost of capital, we expand the zone of reasonableness above the top of the range of WACC estimates developed above. Second, we add this cushion to the zone to account for regulatory lag—the time between recognition of the need for regulatory change in light of changing circumstances, in this case the need to prescribe a different rate of return, as capital markets change significantly, and regulatory action, in this case actually prescribing a new rate of return. We therefore

⁷⁶⁶ See, e.g., *Farmers Union*, 734 F.2d at 1502; *FERC v. Pennzoil Producing Co.*, 439 U.S. 508, 517 (1979) (*Pennzoil Producing*); The Alaska Rural Coalition argues that staff's "recommendation to slash the [rate of return] violates...[the *Permian Basin Area Rate Cases*]....legal precedent" where "the Supreme Court stressed that an agency decision regarding the rate of return should 'reasonably be expected to [1] maintain financial integrity, [2] attract necessary capital, and [3] fairly compensate investors for the risks they have assumed, and [4] yet provide appropriate protection to the relevant public interests, both existing and foreseeable.'" Alaska Rural Coalition Comments at 3-6 (citing *Bluefield Waterworks & Improvement Co. v. Public Service Comm'n of West Virginia*, 262 U.S. 679 (1923); *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968); *Duquesne Light Company v. Barasch*, 488 U.S. 299 (1989)). However, as explained in detail throughout this Order, the Commission balances the factors in the *Permian Basin Area Rate Cases*, finding that the risks faced by rate-of-return carriers are reflected in the WACC calculations and sufficient to attract capital, compensate investors for risks assumed, while ensuring reasonable pricing for consumers and not overburdening the universal service system.

⁷⁶⁷ See *Permian Basin Area Rate Cases*, 390 U.S. at 792, 88 S.Ct. at 1373; see, e.g., *Pennzoil Producing*, 439 U.S. at 519, 99 S. Ct. at 772; *Trans Alaska Pipeline Rate Cases*, 436 U.S. 631, 653, 98 S. Ct. 2053, 2066, 56 L.Ed.2d 591 (1978).

⁷⁶⁸ *Rate of Return Streamlining R&O*, 10 FCC Rcd at 6788, para. 12; *Illinois Bell v. FCC*, 988 F.2d at 1254, 1265-66 (D.C. Cir. 1993); see Rural Associations *Staff Report* Comments at 13-14 (noting that the "Commission has substantial discretion when setting an authorized rate of return, and may consider a broad array of evidence and methodologies in prescribing the authorized rate of return.").

⁷⁶⁹ See, e.g., *Pennzoil Producing*, 439 U.S. at 518, 99 S. Ct. at 771; *Mobil Oil*, 417 U.S. at 308, 94 S. Ct. at 2345. See also 47 CFR § 65.101(a)(3).

⁷⁷⁰ Bowman Report at 12.

⁷⁷¹ *Id.* at 12.

add about three-quarters of a percentage point to the top of the WACC range developed above to account for these two factors, expanding the overall zone of reasonableness for the rate of return estimates to 7.12 to 9.75 percent.

322. We note that the WACC is supposed to compensate equity holders and debtholders who provide the funds used to finance the firm's assets. Given a rate of return set equal to 9.75 percent, an average capital structure based on our estimates of 54.34 percent debt, and a cost of debt based on our estimates of 5.87 percent, the implied cost of equity is 14.37 percent. We find that not only is the WACC of 9.75 percent high enough adequately to compensate the firm's debtholders, but the implied rate of return on equity also provides equity holders with the opportunity to earn a reasonable rate of return on their investment. As support for our finding that a 9.75 percent rate of return is reasonable, we examine some benchmarks.

323. The difference between the implied cost of equity and the cost of debt estimate is 8.5 percentage points (850 basis points). By comparison, this 850 basis point difference exceeds the 439 basis point difference between the estimates of the cost of debt, 8.8 percent, and the cost of equity, 13.19 percent, on which the Commission's current 11.25 percent authorized rate of return is based. That rate of return was developed in 1990 based on estimates of the cost of debt and equity that would have reflected investors' perception of incumbent LEC risks and the conditions in the financial market at the time. So this benchmark provides a useful rough check on our estimates. The 850 basis point difference also exceeds the average difference between the large company stock return, *i.e.*, Standard & Poor's 500 (S&P 500) index companies, and the long-term corporate bond return, from 1926-2010, 570 basis points.⁷⁷² The 850 basis point difference is not as large as the difference between small company stock returns and the long-term corporate bond returns, from 1926-2010, 10.5 percent (1005 basis points).⁷⁷³ However, the difference between the average cost of debt estimate for the six Publicly-Traded RLEC Proxies⁷⁷⁴ that have access to loans made through rural-company programs (such as those administered by the Rural Utilities Service and CoBank), 4.38 percent, and the implied cost of equity for this smaller group, which is 14.15 percent, given this group's capital structure estimate of 45.02 percent debt, is 977 basis points, which is reasonably close to the 1005 historical basis points difference for small companies.⁷⁷⁵ We use this small company benchmark while pointing out that it might be true that, as other analysis suggests,⁷⁷⁶ returns to small companies are no longer statistically different from those of larger companies. If so, then this small company benchmark does not provide any insights beyond the benchmark for larger firms, which then suggests in an even more compelling way that the WACC of 9.75 percent will provide reasonable compensation to owners of these smaller rate-of-return incumbent LECs. Collectively, these benchmarks provide evidence that a WACC and thus an allowable rate of return of 9.75 percent provides a reasonable level of compensation.

g. Specific Rates of Return

324. *Tribally-Owned Carrier Specific Rate of Return.* In the *USF/ICC Transformation FNPRM*, the Commission sought comment on how to account for Tribally-owned carriers in this

⁷⁷² Ibbotson, *supra* note 715, at 19, Tbl. 1.

⁷⁷³ *Id.*

⁷⁷⁴ This would include HickoryTech Corp., Telephone and Data Services, New Ulm, Shenandoah Telecommunications Company, Lumos and Alteva, but exclude Consolidated Communications Holdings, which is now exclusively a price cap incumbent LEC and is more appropriately categorized as such.

⁷⁷⁵ We note that the 45.02% average capital structure for this group of rate-of-return incumbent LECs is roughly the same as the 40% debt capital structure that the Rural Company Group recommends be used for developing WACC estimates for rural incumbent LECs. See Rural Company Group *Staff Report Comments* at 9-11.

⁷⁷⁶ Michael A. Crain, *A Literature Review of the Size Effect* (Oct. 29, 2011), <http://dx.doi.org/10.2139/ssrn.1710076> (last visited Nov. 23, 2015).

prescription, and whether a different rate of return is warranted for these carriers.⁷⁷⁷ Gila River, NTTA and MATI argue in favor a separate, higher, rate of return for Tribally-owned carriers operating in Tribal areas due to illiquidity of Tribal assets and inability to access credit and capital.⁷⁷⁸ Gila River further argues that low income population on Tribal lands, reliance on Rural Utilities Service loans and universal service support, lack of infrastructure on Tribal lands, and unique “environmental and cultural preservation review processes” warrant a separate rate of return for Tribally-owned carriers.⁷⁷⁹ The purpose of the unitary rate of return is to reflect the industry-wide rate of return. Section 65.102(b) provides a process for carriers such as Gila River to apply for exclusion from unitary treatment and receive individual treatment in determining the authorized rate of return.⁷⁸⁰ A petition for exclusion from unitary treatment must plead with particularity the exceptional facts and circumstances that justify individual treatment. The showing shall include a demonstration that the exceptional facts and circumstances are not of transitory effect, such that exclusion for a period of a least two years is justified.⁷⁸¹ To the extent a Tribally-owned carrier or any other rate-of-return regulated carrier contends that a specific, non-unitary, rate of return is justified, it can seek an exclusion via the process outlined in section 65.102(b). As stated above, such applications must be plead with particularity and no rate-of-return incumbent LEC has petitioned for exclusion or otherwise met this burden. Accordingly, at this time, we decline to grant an exception to the authorized unitary rate of return for Tribally-owned carriers as the specific circumstances surrounding each carrier may vary substantially.

6. Implementing the New Rate of Return

325. The Commission has authority under section 205 to prescribe a 9.75 percent unitary rate of return effective immediately.⁷⁸² We recognize, however, that for almost 25 years rate-of-return carriers have made significant infrastructure investments on which they have had the opportunity to earn a rate of return of 11.25 percent until now, and that represeting the rate of return will have a financial impact on these carriers. ICORE proposes that if the Commission lowers the rate of return, it should do so “in the most gradual and least disruptive manner possible.”⁷⁸³ The Moss Adams companies propose that “any changes that the FCC makes should be measured and spread over time.”⁷⁸⁴ USTelecom and NTCA recognize that rate represetion is “essential to a broadband reform effort” and suggest a multi-year transition to 9.75 percent.⁷⁸⁵ We agree. We recognize that rate-of-return incumbent LECs have been subject to significant regulatory changes in recent years, and that such changes are occurring at a time when these carriers are attempting to transition their networks and service offerings to a broadband

⁷⁷⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 18055-56, para. 1059.

⁷⁷⁸ See Reply Comments of the Gila River Indian Community and Gila River Telecommunications, Inc., WC Docket No. 10-90, at 7-19 (filed Aug. 26, 2013) (*Gila River Staff Report Reply*); NTTA *Staff Report* Comments at 7-10; Reply Comments of Mescalero Apache Telecom, Inc., WC Docket No. 10-90, at 6 (filed Aug. 26, 2013) (*MATI Staff Report Reply*). Similarly, NTTA and Gila River requested a market risk premium based on the unique risks that Tribally-owned and operated carriers face in Tribal areas. NTTA *Staff Report* Comments at 8-9; Gila River *Staff Report Reply* at 7-9, 13. The market risk premium is a variable in the CAPM cost of equity calculation which ultimately affects the results of the WACC calculation. Therefore a separate market risk premium for Tribally-owned carriers would create a separate rate of return for those carriers which we rejected for reasons noted above.

⁷⁷⁹ *Gila River Staff Report Reply* at 9-12.

⁷⁸⁰ 47 CFR § 65.102(a).

⁷⁸¹ 47 CFR § 65.102(b).

⁷⁸² 47 U.S.C. § 205; see *Rate of Return Streamlining R&O*, 10 FCC Rcd at 6788, para. 12; *Illinois Bell v. FCC*, 988 F.2d at 1254, 1265-66 (D.C. Cir. 1993).

⁷⁸³ ICORE *Staff Report* Comments at 9.

⁷⁸⁴ Moss Adams *Staff Report* Comments at 27-28.

⁷⁸⁵ USTelecom/NTCA Feb. 6 *Ex Parte* Letter.

world.⁷⁸⁶ At the same time, we find that we must represcribe the almost 25-year old rate of return to meet our statutory obligations.⁷⁸⁷ To minimize the immediate financial impacts that represcription may impose on carriers, the Commission adopts, for the first time, a transitional approach to represcription.

326. Under this transitional approach, as proposed by USTelecom and NTCA,⁷⁸⁸ the 11.25 percent rate of return will be reduced by 25 basis points per year until we reach the represcribed 9.75 percent rate of return. For administrative simplicity, we choose July 1, 2016 as the effective date for the initial transitional rate of return of 11.0 percent followed by subsequent annual 25 basis point reductions consistent with the table below until July 1, 2021 when the 9.75 percent rate of return we represcribe today shall be effective.

Effective Date of Rate of Return	Authorized Rate of Return
July 1, 2016	11.0%
July 1, 2017	10.75%
July 1, 2018	10.5%
July 1, 2019	10.25%
July 1, 2020	10.0%
July 1, 2021	9.75%

IV. FURTHER NOTICE OF PROPOSED RULEMAKING

A. Permitted Expenses, Cost Allocation and Affiliate Transactions

327. With this Notice, we commence a review of the extent to which certain investments and expenses incurred by a regulated local exchange carrier may be included in its rate base and revenue requirement for ratemaking and USF purposes.⁷⁸⁹ The Commission's rules provide that local exchange carriers may not include expenses in their revenue requirement unless such expenses are "recognized by the Commission as necessary to the provision" of interstate telecommunications services.⁷⁹⁰ Similarly, high-cost support provided to an ETC must be used "only for the provision, maintenance, and upgrading of facilities and services for which the support is intended."⁷⁹¹

328. The Commission has not comprehensively reviewed the continued reasonableness of its existing rules regarding permissible investments and expenses for local exchange carriers since the passage of the Telecommunications Act of 1996. Market and regulatory conditions have changed substantially since that time. Notably, regulated telecommunications carriers have expanded into the provision of retail broadband services, either directly or through affiliated entities. Regulated carriers also increasingly face competition, for both voice and broadband services, in portions of their incumbent territory from other facilities-based providers, such as cable and wireless providers. These changing conditions may impact the types of costs carriers attempt to include in their revenue requirement and the ways in which carriers allocate costs between regulated and non-regulated services and affiliates.

⁷⁸⁶ See generally *USF/ICC Transformation Order*; see also generally *Emerging Wireline Network and Services NPRM; Technology Transitions et al.*, GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, 29 FCC Rcd 1433 (2014).

⁷⁸⁷ See generally 47 U.S.C. § 205(a).

⁷⁸⁸ USTelecom/NTCA Feb. 6 *Ex Parte* Letter.

⁷⁸⁹ We note that there may be limited circumstances where our proposed reforms would impact price cap regulated carriers' use of high-cost USF support.

⁷⁹⁰ 47 CFR § 65.450.

⁷⁹¹ 47 U.S.C. § 254(e).

329. Moreover, with steady demands on the high-cost program and a shrinking contribution base, it is more important than ever that these limited funds be used solely for their intended purposes. Likewise, amidst challenging economic conditions, it simply is not right to expect consumers across the country, including those in rural areas, to reimburse rate-of-return carriers – through the regulated rates for interstate service – for excessive or otherwise inappropriate expenses.

330. While we believe that most rate-of-return carriers properly record their costs and seek support only for the intended purposes, through audits, inquiries and other investigations, the Commission has recently been made aware of alleged abuses by rate-of-return carriers of the used and useful principles and its cost allocation rules. These situations involve rate-of-return carriers, for example, including questionable expenses in their revenue requirement, using support for purposes unrelated to the provision of services, and misallocating expenses among affiliates, or between regulated and non-regulated activities.⁷⁹² Against that backdrop, we conclude it is time to reevaluate the types of expenses that should be permitted—both in a carrier’s revenue requirement and for recovery through high-cost support. Looking into the expenses permitted and the allocation of those expenses will help ensure that carriers are only recovering costs that are used and useful and prudently incurred, and in the case of high cost support, only costs that are necessary to the provision of interstate telecommunications services.

1. Background

331. Rate-of-return carriers record their investments, expenses, and other financial activity in the Part 32 uniform system of accounts (USOA).⁷⁹³ The USOA includes accounts referred to as regulated accounts and non-regulated accounts. Investment and expenses entirely associated with the provision of a regulated activity, or that are used for both regulated and non-regulated services are recorded in the regulated accounts.⁷⁹⁴ Investment and expenses entirely associated with the provision of non-regulated activity are assigned to the non-regulated accounts and are not included when determining a carrier’s interstate rate base or revenue requirement.⁷⁹⁵

332. The investment and expenses recorded in the regulated accounts of the USOA are then allocated between regulated and non-regulated activities in accordance with procedures contained in Part 64 of the Commission’s rules.⁷⁹⁶ Those rules generally provide that costs shall be directly assigned to either regulated or non-regulated activities where possible, and common costs are allocated according to a hierarchy of principles.⁷⁹⁷ To the extent costs cannot be allocated based on direct or indirect cost

⁷⁹² See, e.g., *Adak July 15, 2013 Order*, 28 FCC Rcd at 10205, para. 31 (explaining that the company’s “corporate operations expenses appear disproportionate in relation to the expenses of its peers... Stated differently, for companies with zero to 350 loops, AEE had over four and a half times the average corporate operations expense.”).

⁷⁹³ See 47 CFR part 32.

⁷⁹⁴ See *id.* § 32.14(c). Investment and expenses involving affiliated transactions pursuant to section 32.27 of the Commission’s rules are recorded in accordance with this division between regulated and non-regulated accounting. See *id.* § 32.27.

⁷⁹⁵ See *id.* § 32.14(f). A carrier’s interstate rate base is the interstate portion of its investment recorded in accounts listed in section 65.820 of the Commission’s rules, net of depreciation and amortization, minus any deducted items in section 65.830 (such as the interstate portion of deferred taxes and customer deposits). See *id.* §§ 65.800, 65.820, 65.830. The interstate rate base is the amount upon which a carrier is entitled to earn a return. A carrier’s interstate revenue requirement is equal to its interstate operating expenses (including depreciation and amortization), taxes, and the rate-of-return on a carrier’s interstate rate base. See *id.* § 51.917(b)(4). The interstate revenue requirement is used to determine the interstate rates a carrier is permitted to charge, and the total projected interstate revenues cannot exceed the projected interstate revenue requirement.

⁷⁹⁶ See *id.* §§ 64.901-905. For purposes of this discussion, a “non-regulated” activity refers to an activity that is not subject to rate regulation. Pursuant to the *Open Internet* order, broadband Internet access is not subject to tariffing or rate regulation. See *Open Internet Order*, 30 FCC Rcd at 5612, para. 37.

⁷⁹⁷ See *id.* § 64.901.

causation principles, they are allocated based on a ratio of all expenses directly assigned or attributed to regulated and non-regulated activities.⁷⁹⁸ For example, central office equipment and outside plant investment are allocated based on the relative regulated and non-regulated usage of the investment.⁷⁹⁹ The investment and expenses allocated to non-regulated services through this process are excluded from the development of the regulated interstate rate base and revenue requirement.

333. The regulated investment and expenses remaining after the application of the Part 64 process are then split between the intrastate and interstate jurisdictions in accordance with the separations process described in Part 36.⁸⁰⁰ The separations procedures assign investment and expenses to categories through direct assignment or by the use of some broader allocator. The investment and expenses are then divided between the interstate and intrastate jurisdictions on the basis of direct assignment, or through relative usage measurements or gross allocators. The interstate investment and expenses flowing from the separations process are the inputs to the development of rates for interstate services. Subparts D and E of Part 69 assign the interstate costs among the common line, local switching, transport, special access, billing and collection, and interexchange service categories.⁸⁰¹

334. The preceding paragraphs explain the process by which a carrier uses the amounts recorded in its USOA books of account to identify the regulated interstate costs that it is permitted to use for purposes of calculating rates for interstate services. Separately and concurrently, the Commission for decades has applied the “used and useful” standard in determining appropriate investment and expenses to be included in a rate-of-return carrier’s interstate rate base and revenue requirement. The used and useful standard provides the foundation for Commission decisions evaluating whether particular investments and expenses are reasonable. Property is considered used and useful for regulatory ratemaking if it is “necessary to the efficient conduct of a utility’s business, presently or within a reasonable future period.”⁸⁰²

335. Several different elements comprise the Commission’s analysis as to whether investment and expenses are used and useful. First, the Commission considers the need to compensate the utility’s owners for the use of their property and the expenses incurred in providing the regulated service.⁸⁰³ Second, the Commission looks to the equitable principle that ratepayers should not be forced to pay a return except on investments that can be shown to benefit them, thus it considers whether the expense was necessary to the provision of interstate telecommunications services.⁸⁰⁴ Finally, the Commission considers whether a carrier’s investments and expenses were prudent,⁸⁰⁵ and whether the benefit from the

⁷⁹⁸ See *id.* § 64.901(b)(3)(iii).

⁷⁹⁹ See *id.* § 64.901(b)(4).

⁸⁰⁰ See *id.* § 36.1 *et seq.*

⁸⁰¹ See generally *id.* § 69.301 *et seq.*; *id.* § 69.401 *et seq.*

⁸⁰² *American Tel. and Tel. Co.*, Phase II Final Decision and Order, 64 FCC 2d 1, 38, para. 111 (1977) (*AT&T Phase II Order*).

⁸⁰³ See *AT&T Phase II Order*, 64 FCC 2d at 38, para. 111.

⁸⁰⁴ See *id.* at 38, para. 112 (“Equally central to the used and useful concept, however, is the equitable principle that the ratepayers may not fairly be forced to pay a return except on investment which can be shown directly to benefit them. Thus, imprudent or excess investment, for example, is the responsibility and coincident burden of the investor, not the ratepayer.”). The benefit, however, does not have to be immediate and can include, for example, a portion of equipment that is serving as a reserve for future use. See, e.g., *Investigation of Special Access Tariffs of Local Exchange Carriers*, Memorandum Opinion and Order, FCC 86-52, 1986 WL 291617, para. 41 (1985) (*Phase I Special Access Tariffs Investigation Order*), remanded on other grounds, *MCI Telecom. Corp. v. FCC*, 842 F.2d 1296 (D.C. Cir. 1988).

⁸⁰⁵ See, e.g., *1990 AT&T Tariff Revisions Order*, 5 FCC Rcd at 5695, para. 17 (citations omitted).

investment will be realized in a reasonable period of time.⁸⁰⁶ Although the Commission has identified general principles regarding what constitutes used and useful investment to be included in a carrier's revenue requirement, it has recognized "that these guidelines are general and subject to modification... The particular facts of each case must be ascertained in order to determine what part of a utility's investment [and expenses are] used and useful."⁸⁰⁷ The Commission has not issued any comprehensive decisions regarding application of the used and useful standard since the passage of the Telecommunications Act of 1996.

336. These revenue requirement principles are also relevant to expenses for which carriers should be permitted to recover through high-cost support. Under the 1996 Act and the Commission's rules, ETCs are only permitted to use high-cost support for the provision, maintenance, and upgrading of facilities and services for which the support is intended.⁸⁰⁸ The Commission recently released a public notice in which it reminded ETCs of their obligation to use high-cost support only for its intended purpose of maintaining and extending communications services to rural, high-cost areas.⁸⁰⁹ The public notice listed a number of expenses ETCs are not permitted to recover through high-cost support.⁸¹⁰ The notice also reminded rate-of-return carriers that they must not include expenses in their revenue requirements unless such expenses are "recognized by the Commission as necessary to the provision" of interstate telecommunications services.⁸¹¹

337. Rate-of-return carriers use the investment and expense amounts produced from the Part 69 allocation rules to develop rates for interstate telecommunications services.⁸¹² Rate-of-return carriers must file interstate access tariffs with the Commission for most interstate access services.⁸¹³ A rate-of-return carrier may file its own interstate access tariff(s), or it may participate in the interstate common line or traffic-sensitive access tariff filed by NECA. Most rate-of-return LECs participate in one or both of the tariffs filed by NECA. Traditionally, the common line, switched access, and special access rates were set based on the projected aggregate costs (or average schedule settlements) and demand of all pool members participating in the tariff, and these rates are targeted to achieve the authorized rate of return.⁸¹⁴ Although common line and special access rates continue to be developed in the traditional manner, the interstate switched access rates are now capped at rates determined by the procedures established in the *USF/ICC*

⁸⁰⁶ *AT&T Phase II Order*, 64 FCC 2d at 38, para. 113 ("The phrase 'presently or within a reasonable future period' in the denotation of 'used and useful' is included to protect ratepayers from being forced to pay a return on investment which may not be used for a considerable length of time or is not needed to serve as a reserve for currently used investment.").

⁸⁰⁷ *AT&T Phase II Order*, 64 FCC 2d at 39, para. 115.

⁸⁰⁸ 47 U.S.C. § 254(e); 47 CFR § 54.7. Connect America support includes Connect America Fund Inter-carrier Compensation replacement support received pursuant to section 54.304. 47 CFR § 54.304.

⁸⁰⁹ See *All Universal Service High-Cost Support Recipients are Reminded that Support Must be Used for its Intended Purpose*, WC Docket Nos. 10-90 and 14-58, Public Notice, FCC 15-133 at 1 (2015) (*High Cost Oct. 19, 2015 Public Notice*).

⁸¹⁰ See *High Cost Oct. 19, 2015 Public Notice* at 1.

⁸¹¹ *Id.* at 2.

⁸¹² Rate-of-return carriers may offer DSL service on a detariffed basis. See generally *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14924-29, paras. 128-44 (2005).

⁸¹³ 47 CFR § 69.3(f).

⁸¹⁴ In lieu of cost studies, average schedule carriers are compensated by formulas that establish settlements for average schedule carriers that are comparable to the settlements received by comparable cost companies. The average schedule settlements are added to the costs of the cost companies to form the revenue requirement for the pool.

Transformation Order.⁸¹⁵ Each participating carrier settles with the pool based on Commission rules and policies and the carrier's contract with NECA.

338. Accounting data from the USOA is also used to calculate the amount of high-cost support that each ETC is eligible to receive. HCLS is developed from certain unseparated investment and costs that form the basis for performing separations studies.⁸¹⁶ ICLS is derived from the data flowing from the Part 69 cost allocations.⁸¹⁷ Calculations for determining ICC-related recovery also take cost data into account through the use of the 2011 interstate revenue requirement. The 2011 interstate revenue requirement is a critical input into the initial Base Period Revenues for rate-of-return carriers that is used in deriving a carrier's ICC-related recovery amounts.⁸¹⁸

2. Discussion

a. Review of permitted expenses

339. We begin our reevaluation of a rate-of-return carrier's ability to include certain types of expenses in their revenue requirement and high-cost support with consideration of the appropriate standard to be applied. As noted above, the Commission has used different terms in different situations—"used and useful," "prudent expenditure," and "necessary to the provision of." We believe that these terms should be read consistently to describe those expenses that a carrier may appropriately include in its interstate rate base, interstate revenue requirement, and cost studies used to calculate high-cost support. Thus, they should reflect a business operation that is run efficiently to provide telecommunications services. The costs should include amounts of long-term investment and current expenditures that a business would reasonably incur to provide telecommunications services, taking into account current and reasonably forecasted operating conditions and business levels. We invite parties to comment on these standards and whether they should be viewed as applying a consistent standard to regulated, tariffed services and to expenditures that are recovered through high-cost support. To the extent that a party believes different standards should be applied, it should specify the situations in which such differences should apply, what the differences are, and how they should be treated within the accounting and cost allocation processes of the Commission. As parties respond to the issues raised below, they should consider the application of the standards in their comments.

340. The Commission recently indicated that ETCs may not recover certain types of expenses through high-cost support. Those expenses include the following: personal travel; entertainment; alcohol; food, including but not limited to meals to celebrate personal events, such as weddings, births, or retirements; political contributions; charitable donations; scholarships; penalties or fines for statutory or regulatory violations; penalties or fees for any late payments on debt, loans, or other payments; membership fees and dues in clubs and organizations; sponsorships of conferences or community events; gifts to employees; and, personal expenses of employees, board members, family members of employees and board members, contractors, or any other individuals affiliated with the ETC, including but not limited to personal expenses for housing, such as rent or mortgages.⁸¹⁹

⁸¹⁵ See 47 CFR § 51.909(a).

⁸¹⁶ See generally 47 CFR 54.901 *et seq.* High-cost additive support is also developed from that data.

⁸¹⁷ See generally *id.*

⁸¹⁸ See *id.* § 51.917(b)(7).

⁸¹⁹ *High Cost Oct. 19, 2015 Public Notice* at 2. The list published on October 19, 2015 was a non-exhaustive list of the types of expenses that may not be recovered through the high-cost program. Other examples of costs that cannot be recovered through the high-cost program include consumer electronics such as televisions, sound systems, and related video devices; tangible property used for entertainment purposes, such as pool tables; and kitchen appliances such as stoves and dishwashers.

341. We seek comment on explicitly prohibiting the inclusion of any of these expenses in a carrier's interstate revenue requirement, which would supersede any existing rules or precedent that might otherwise suggest these are legitimate expenditures.⁸²⁰ We tentatively conclude that these expenditures are unnecessary to the provision of regulated interstate services and thus are not appropriately included in a rate-of-return carrier's interstate revenue requirement, just as they are not appropriately included in calculating the level of high-cost support a carrier receives. Recognizing that some of these enumerated types of expenditures are quite broad, however, we invite parties to indicate whether there is a definable subset of expenses within any of the categories that should not be excluded from a carrier's interstate revenue requirement. Parties believing there are specific types of expenses that should be included in the interstate revenue requirement should provide examples of such expenses, the reasons they are necessary, as well as specific language that would allow the Commission to distinguish these expenses from those that are appropriately excluded. We also seek comment on whether, if we ultimately decide some of these expense categories, or a portion of them, should be allowed in a carrier's interstate revenue requirement, whether similar treatment should be accorded those expenses for purposes of high-cost support.

342. In addition to the expenses identified in the *High Cost Oct. 19, 2015 Public Notice*, we propose to prohibit additional expenses from inclusion in a carrier's interstate revenue requirement and also preclude their recovery through high-cost support. The additional expenses that we propose to disallow for these purposes include: artwork and other objects which possess aesthetic value; corporate aircraft, watercraft, and other motor vehicles designed for off-road use, except insofar as necessary to access inhabited portions of the study area not reachable by motor vehicles travelling on roads; any vehicles for personal use; tangible property not logically related or necessary to the offering of voice or broadband services; childcare; cafeterias and dining facilities; and, housing allowances or other forms of mortgage or rent assistance for employees. Like the expenses listed above, we are concerned that some carriers may incur additional expenses of this nature that are not necessary to the provision of the supported service – voice telephony – and not necessary to the provision of regulated interstate services. If adopted, such a rule would overturn any existing rule or precedent that might suggest such expenditures are permissible.

343. We invite parties to comment on whether there is any reason that these expense categories should not be completely excluded from a carrier's revenue requirement or its high-cost support. Parties making an argument for inclusion of these expenses in a carrier's revenue requirement should explain clearly why such expenses are necessary to the provision of a supported service or to the provision of a regulated interstate telecommunications service. We invite parties to indicate whether there is a definable subset of expenses within any of the categories that should not be excluded from a carrier's interstate revenue requirement or high-cost support. Parties believing that to be the case should provide examples of such expenses, the reason they are necessary, as well as specific language that would allow the Commission to distinguish these expenses from those that are appropriately excluded.

344. We also invite parties to identify additional expenses that should be excluded from either a carrier's interstate revenue requirement, from calculations of high-cost support, or both.⁸²¹ Parties identifying additional expenses to be excluded should address the reasons they are unnecessary to the provision of telecommunications service or to the provision of supported services. Parties seeking

⁸²⁰ We reiterate that ETCs already may not recover these expenses through high-cost support, and our proposal is to also prohibit the inclusion of any of these expenses in a carrier's interstate revenue requirement.

⁸²¹ As explained above, to the extent that a party believes different standards should be applied, it should specify the situations in which such differences should apply, what the differences are, and how they should be treated within the accounting and cost allocation processes of the Commission. See *supra* para. 339.

additional exclusions should also provide language that would allow the Commission to exclude such items if it elects to do so.⁸²²

345. In addition to these categories, the Commission has seen instances in which “companies maintain comparatively high compensation portfolios for their executives.”⁸²³ The Commission expressed concern that these and other expenses were not reasonable and necessary given a number of considerations. We seek comment on how to address potential concerns regarding such expenses for executives, those with close relationships to those executives, and a carrier’s other employees and contractors.

346. We are also aware of at least one instance in which costly benefits were sought to be provided to board members.⁸²⁴ Are there circumstances under which compensation for board members, including fees per-meeting, for special duties assumed, and for travel and per diem expenses should be deemed unreasonable? If so, on what basis? Is additional evaluation warranted where board members have a close relationship to someone in the company?

347. We seek comment on whether the costs that may be included in a carrier’s revenue requirement for buildings purchased or rented by regulated telecommunications carriers should be limited. For example, in cases where excessive square footage of office or warehouse space is purchased by a regulated carrier in order to earn a rate of return on that space, should part of the price paid for the building be excluded from the revenue requirement? How should “excessive” be defined for this purpose? Are there objective metrics available on the square footage of office space per employee that is reasonable, or on the square footage of warehouse space that a carrier should reasonably require given the number of loops the carrier provides and the density of its service area? Are there objective metrics on the price per square foot that should be paid for office or warehouse space in specific locations?

348. Section 32.2002 provides that plant held for future use must be utilized within two years.⁸²⁵ This plant is included in the carrier’s rate base. We are concerned that carriers may have incentives to place excess capacity in the interstate regulated rate base that will not be used in the foreseeable future, with ratepayers bearing the cost.⁸²⁶ We remind carriers that the benefit from a used and useful investment must be realized within a reasonable amount of time. Thus, we invite parties to comment on whether we should adopt a rule that would prohibit a regulated carrier from leasing capacity from its unregulated affiliate that is not presently utilized in the provision of voice or broadband services. Alternatively, could this concern be addressed by defining more precisely what constitutes reasonable projections of use and/or requiring that such capacity be used within a shorter timeframe than two years? Parties are invited to address the types of uses that should be considered to meet the requirement that excess capacity be used in the foreseeable future.

349. As explained above, carriers record their financial transactions in the USOA books of account as they occur.⁸²⁷ These amounts then flow through the allocation procedures in Parts 64, 36, and 69 with the implied assumption that the recorded amounts are reasonable, and thus prudently incurred.

⁸²² With respect to ensuring the appropriate use of high-cost funds for certain expenses, our proposals apply to both price cap and rate-of-return carriers. Our proposals concerning permitted expenses for the revenue requirement would primarily apply to rate-of-return carriers, but they would also apply to price cap carriers in limited circumstances.

⁸²³ See, e.g., *Adak* July 15, 2013 Order, 28 FCC Rcd at 10201, para. 22.

⁸²⁴ See, e.g., GVNW Request for Clarification Concerning the Appropriate Accounting Treatment of Key Man Insurance, WC Docket No. 06-11, Pleading Cycle Established, DA 06-488 (WCB Feb. 28, 2006).

⁸²⁵ See 47 CFR § 32.2002.

⁸²⁶ We note that this is separate from spare capacity, which is accounted for in Account 2001. *Id.* § 32.2001.

⁸²⁷ See *supra* Section IV.A.1.

While the used and useful and prudent expenditure standards apply to all investments and expenses of the carrier, the principles considered under this standard have been interpreted only in limited, specific cases.⁸²⁸ We now seek comment on whether the Commission should adopt more precise guidance regarding what constitutes a used and useful or otherwise prudent expenditure.

350. We note that transactions between non-affiliated parties that are negotiated at arm's length are generally presumed to produce commercially reasonable prices. Affiliate transactions, however, are not negotiated at arm's length and thus, may result in unreasonable prices absent standards governing how those transactions should be priced; that is why the Commission adopted rules for the pricing of affiliate transactions decades ago.⁸²⁹ We now invite parties to comment on whether there are circumstances surrounding transactions between non-affiliated parties that might raise concerns about whether the resulting prices are reasonable. For example, would a close family relationship or cross-participation on boards of directors be situations that warrant more scrutiny of the price? We invite parties to discuss these examples and to identify other examples that might raise concerns. Parties are invited to discuss whether presumptions concerning what would be a prudent expenditure could be employed to ensure that prices are reasonable.

351. The Commission's rules require a carrier in specified situations to record the purchase of a good or service from an affiliate at fair market value.⁸³⁰ We invite parties to comment on whether the affiliate transaction standard should also be applied to goods and services acquired from non-affiliated entities. If not, parties should propose an alternative standard and explain why it is a preferable approach. We also invite parties to comment on the factors that should be considered in determining whether a transaction is a prudent expenditure or is a reasonable market price in evaluating prices in situations identified as warranting a closer look. Are there circumstances where a prudent expenditure might be something other than the absolute lowest identified price? Parties are invited to identify other metrics beside cost and reliability that are relevant in determining whether an investment or expense is prudent for the purposes of our rules. Finally, are there specific circumstances under which a carrier should be required to make a good faith determination of fair market value for a good or service obtained from a non-affiliate, prior to incurring such expenses, for instance when the total aggregate annual value of the good(s) or service(s) reaches or exceeds a specified threshold for purchases from a non-affiliate, as is done under section 32.27(b)(3) and (c)(3) for affiliates?

352. Finally, we invite parties to comment on the best manner of implementing any decision to exclude the expenses identified in this section. Specifically, parties should address whether it would be sufficient to adopt an order simply identifying and defining which costs are not allowed, as has generally been the process in the past, or whether some rule revisions are necessary. If rule revisions are thought necessary, parties should address where in the process they can best be implemented. Part 32 excludes certain investments and expenses as non-regulated, while Part 64 allocates investments and expenses used to provide both regulated and non-regulated activities that are recorded in the regulated accounts of Part 32 between regulated and non-regulated activities. In addition, for purposes of determining whether a carrier's realized rate-of-return exceeds the maximum allowable rate of return, Part 65 specifies the determination of earnings and rate base.⁸³¹ Parties are encouraged to address whether some cost

⁸²⁸ See, e.g., *American Telephone and Telegraph Company*, Docket No. 19129, Phase II Initial Decision, 64 FCC 2d 131 (1976); *Phase II Final Decision*, 64 FCC 2d 1, 76, para. 194 (1977); *Amendment of Part 65 of the Commission's Rules to Prescribe Components of the Rate Base and Net Income of Dominant Carriers*, CC Docket No. 86-497, Report and Order, 3 FCC Rcd 269 (1988).

⁸²⁹ See generally *Separation of Costs of Regulated Telephone Service from Costs of Nonregulated Activities*, Report and Order, CC Docket No. 86-111, 2 FCC Rcd 1298 (1987) (*Joint Cost Order*), *recon.*, 2 FCC Rcd 6283 (1987), *further recon.*, 3 FCC Rcd 6701 (1988), *aff'd sub nom. Southwestern Bell Corp. v. FCC*, 896 F.2d 1378 (D.C.Cir. 1990).

⁸³⁰ See 47 CFR §§ 32.27(b)(2), (c)(2).

⁸³¹ See *id.* § 65.450.

disallowances would be better achieved through revisions to the Part 32 rules,⁸³² while other cost disallowances could best be addressed through revisions to other rules in Parts 64, 65, 69, or some combination of these rules. In other words, is it better to first enumerate which expenses should be excluded from the revenue requirement as not used and useful in the provision of regulated services and then proceed with allocating costs, or is it better to rely on the cost allocation procedures in Part 64 to exclude such expenses? One of the goals of the USOA at the time it was adopted was that it remain stable over time.⁸³³ How should this be factored into the decision of where to make certain disallowances? Parties are invited to submit proposed language to accomplish the approach they recommend. Lastly, we invite parties to comment on whether we should require rate-of-return carriers to identify their cost consultants, if any, in their FCC Form 481s.

b. Issues related to cost allocation and affiliate transactions

353. Rate-of-return carriers are subject to the Commission's longstanding Part 64 rules regarding the allocation of costs between regulated and non-regulated activities and to the affiliate transaction rules in Part 32.⁸³⁴ Under these rules, carriers currently apply broad principles in making such allocations, and the lack of specificity in the rules gives carriers a degree of discretion in making these allocation decisions.⁸³⁵ Therefore, there is an incentive to interpret the allocation rules in order to allocate as many costs as possible to their regulated activities, both to justify a higher interstate revenue requirement and to receive additional high-cost support. For instance, marketing costs could be recorded solely as regulated expenses, even though those marketing activities are designed to increase subscribership of retail broadband, i.e., non-regulated services. Given the lack of specific guidance, the additional costs associated with the provision of retail broadband services, and the incentive to allocate costs to regulated activities, we conclude that it is time to revisit our allocation rules in order to provide greater clarity to rate-of-return carriers regarding how to determine the relative allocation of costs between regulated and non-regulated activities and affiliates.

354. As noted, the Commission's existing cost allocation rules relating to regulated versus non-regulated activities generally provide that costs shall be directly assigned to either regulated or non-regulated activities where possible, and common costs are to be allocated according to a hierarchy of principles.⁸³⁶ To the extent costs cannot be allocated on direct or indirect cost causation principles, they are allocated based on a ratio of all expenses directly assigned or attributed to regulated and non-regulated activities.⁸³⁷ In certain cases, the affiliate transaction rule requires fully distributed costs to be used to determine the charge to the affiliate or the carrier.⁸³⁸

355. We seek comment on adopting new rules to improve the process of allocating costs among regulated and non-regulated services and between affiliates. We also seek a better understanding of how to detect cases of misallocation. Our goal is to reduce the potential ability of carriers to include expenses associated with non-regulated services in their regulated revenue requirements, and to preclude carriers from artificially inflating their high-cost support through such actions. To this end, we seek

⁸³² We are providing state commissions with notice of this in compliance with the requirements of section 220(i) of the Act in the event we decide to make some revisions to Part 32. 47 U.S.C. § 220(i).

⁸³³ See *Revision of the Uniform System of Accounts and Financial Reporting Requirements for Telephone Companies (Parts 31, 33, 42, and 43 of the FCC's Rules)*, CC Docket No. 78-196, Second Supplemental Notice of Proposed Rulemaking and Order, 88 FCC 2d 83, 87, para. 13 (1981).

⁸³⁴ See generally 47 CFR § 64.901 (regarding cost allocation); *id.* § 32.27 (regarding the affiliate transaction rules).

⁸³⁵ See *id.* § 64.901; *id.* § 32.27.

⁸³⁶ See *id.* § 64.901.

⁸³⁷ See *id.* § 64.901(b)(3)(iii).

⁸³⁸ See *id.* § 32.27(c).

comment on adopting a rule that would classify certain costs, such as general and administrative expenses, as common costs for purposes of applying the Part 64 and affiliate transaction rules when an entity provides broadband services directly, or through an affiliated entity. Are there other costs that should be treated as common costs in applying these allocation rules? Under such an approach, carriers would be precluded from including all of these expenses in their regulated revenue requirement, and instead, would be required to exclude some expenses based on the prescribed manner of allocation. Accordingly, we also seek comment on adopting rules that would prescribe the manner of allocation of common costs in particular situations. For example, are there certain common costs that we should specify by rule that they should be allocated on the basis of the relative number of regulated lines compared to the total number of lines (both regulated and non-regulated) for the rate-of-return carrier and its broadband affiliate, if any?⁸³⁹ Are there other instances in which relative revenues or some other measure would be a better allocator, taking into account the ease of administering any such rule?

356. We are concerned about the potential for carriers to provide shared operational services to their affiliates under fully-distributed cost (FDC) allocation procedures that do not include all of the associated costs. The affiliate transaction rules employ a higher of cost or market standard when applicable, or a FDC standard to ensure that all costs of services provided by a regulated telecommunications company are recovered from its affiliates. The general nature of the FDC allocation guidelines, however, allows carriers significant discretion in performing the FDC cost study. This discretion allows carriers to exclude expenses associated with providing shared functions to their non-regulated affiliates, especially to those affiliates that then sell retail broadband services to end users on an unregulated basis, thus recovering these costs from rate payers. We seek comment on clarifying or adopting new rules to ensure the proper application of the affiliate transaction rules in light of provision of retail broadband by affiliates in certain telecommunications markets.

357. Our accounting and high-cost universal service support rules rely on proper allocation of costs to work as intended. We seek comment on specific instances in which additional rules or further clarification could minimize potential misallocations and thereby protect ratepayers of regulated services. Are there other methods that would help ensure proper allocation of costs between regulated and non-regulated services?

358. We are also concerned that problems similar to those associated with regulated versus non-regulated allocations may arise in the application of the FDC process in connection with affiliate transactions. Section 32.27 of the Commission's rules requires an incumbent LEC to record assets or services received from its affiliated entities at the lesser of FDC or fair market value when no tariff rate, prevailing price, or publicly filed agreement exists.⁸⁴⁰ FDC may be over-inclusive, however, if it includes investment and expenses of the affiliate that would not properly be included in a carrier's revenue requirement or calculations for high-cost support.⁸⁴¹ While the used and useful and prudent expenditure standards apply to costs included in affiliate transactions, we seek comment on whether we should adopt a rule that explicitly prohibits carriers from including in the FDC of an affiliate any costs that are disallowed from the regulated rate base or revenue requirement, or considered not to be used and useful or prudent expenditures. Without such a rule, carriers could shift costs to an affiliate and then effectively recover those disallowed costs through payments to the affiliate. We invite parties to comment on how such an approach could be implemented, and whether there are circumstances under which these costs of

⁸³⁹ Stated differently, we seek comment on whether we should require certain common costs to be allocated based on the number of regulated lines compared to the total number of lines and the number of non-regulated lines compared to the total number of lines.

⁸⁴⁰ See 47 CFR § 32.27.

⁸⁴¹ For instance, if an affiliate charges the regulated carrier for expenses incurred and services rendered, the FDC method could effectively result in the regulated entity indirectly paying for expenditures that the Commission has expressly states are not properly included in high-cost support calculations.

affiliates should be properly included in the regulated rate base or costs used to calculate high-cost support.

359. We seek comment on whether additional data would assist in enforcement of the Commission's accounting and cost allocation rules, while minimizing ETC reporting burden.

c. Compliance Issues

360. Finally, we seek comment on the most effective way to ensure compliance with the proposed rules for universal service support and tariffing purposes.⁸⁴² We invite parties to comment on whether we should require carriers to certify that they have not included any prohibited expenses in their cost submissions used to calculate high-cost support. If so, is there a current certification that can be modified to encompass this aspect, or is a new rule necessary? Because audit findings can be used to recover overpayments of high-cost support, we also invite parties to comment on how the Commission should implement any requirements it may adopt. Are there other proposals or considerations that the Commission should consider to ensure compliance with any revised requirements?

361. Ensuring compliance with any revised investment, expense, or cost allocation rules in the tariffing context raises different challenges. Rate-of-return carrier tariffs must be filed in advance of their effective date,⁸⁴³ and pursuant to section 204 of the Act, the Commission, during the notice period, may suspend the effectiveness of a tariff and initiate an investigation to determine whether the tariff is just and reasonable.⁸⁴⁴ Section 204(a)(3) provides that local exchange carrier tariffs that take effect on 7-days notice after filing (when rates are reduced) or 15-days notice (for any other change) after filing are "deemed lawful" unless rejected or suspended and investigated by the Commission.⁸⁴⁵ If a tariff investigation has not been completed within five months of the tariff's specified effective date, the proposed tariff goes into effect subject to the results of the investigation.⁸⁴⁶ At the conclusion of the investigation, the Commission may prescribe rates prospectively and order refunds as necessary for any period in which the tariff was in effect.⁸⁴⁷ With these constraints on timing and prohibition on retroactive relief, we invite parties to comment on steps the Commission could take to ensure that carriers follow these requirements. As a starting point, we propose to require a certification and seek comment on what it should entail. We also invite parties to comment on what sanctions should be used to give some meaning to the certifications.

362. We invite parties to comment on whether, and if so, when an exception to the "deemed lawful" provision of section 204 of the Act would apply where a carrier violated these rules. We note that in *ACS v. FCC*, the D.C. Circuit indicated that although the "deemed lawful" language is unambiguous, "[w]e do not, of course, address the case of a carrier that furtively employs improper accounting techniques in a tariff filing, thereby concealing potential rate of return violations. The Order here makes no claim of such misconduct."⁸⁴⁸ The D.C. Circuit thus acknowledged that there may be extenuating circumstances (such as using improper accounting techniques or willfully misrepresenting expenses) that warrant an exception to the deemed lawful language. We propose to adopt a rule that would find an

⁸⁴² Rate-of-return affiliates of price cap carriers would be subject to any revised rules in establishing their tariffed rates for interstate services. In addition, if a price cap carrier is required to make a cost-based showing in the future, any expense rules adopted in this proceeding would apply to such showings.

⁸⁴³ See 47 U.S.C. § 203(b).

⁸⁴⁴ 47 U.S.C. § 204(a)(1).

⁸⁴⁵ See 47 U.S.C. § 204(a)(3); see also *Streamlined Tariff Order*, 12 FCC Rcd at 2202-03, paras. 67-68.

⁸⁴⁶ 47 U.S.C. § 204(a)(1). The Commission is to issue an order concluding a tariff investigation within 5 months after the date the tariff would have gone into effect. 47 U.S.C. § 204(a)(2)(A).

⁸⁴⁷ 47 U.S.C. § 204(a)(1).

⁸⁴⁸ See *ACS v. FCC*, 290 F.3d 403, 413 (D.C. Cir. 2002)

exception to the deemed lawful rule when a carrier incorrectly certifies that its revenue requirements are compliant with the applicable standards. We invite parties to comment on this proposal. In particular, parties should address the amount of the discrepancy in actual and projected costs that must exist before such an exception would be invoked. We also ask parties to comment on how any cost recovery should be returned to customers. For example, should it be used to reduce the revenue requirement for the following tariff period? Should there be an interest component to what must be returned to the customers. If so, what should the applicable interest rate be—the authorized rate of return, the corporate tax underpayment rate, or something else? Are there other mechanisms we should consider to deter inclusion of inappropriate expenses in a rate-of-return carrier’s revenue requirement?

363. The vast majority of rate-of-return carriers are members of the NECA pool, and their costs are combined to establish pool rates. We invite parties to comment on NECA’s role in enforcing these rules. Should carriers be barred from pool participation if determined to be including expenses prohibited by Commission rules? How should the magnitude of the violation be determined? What percent level of prohibited cost inclusion should be required before immediate expulsion from pool participation is deemed necessary? Are there any other metrics that should be considered in making this determination? Should carrier violations for inclusion of prohibited expenses have a “repeated occurrences” component, or should one time inclusion of a certain percentage of prohibited expenses impact pool participation?

B. Reducing Support in Competitive Areas

364. In section II.B of the Report and Order above, we conclude that CAF BLS should not be provided in areas served by a qualifying unsubsidized competitor.⁸⁴⁹ We adopt several methods of disaggregating CAF BLS for areas found to be competitively service, and allow carriers to select which method will be used. USTelecom and NTCA propose that in addition to the methods they specifically presented, carriers should also have the option of disaggregating support based on a “method approved by the Commission.”⁸⁵⁰ Here, we invite commenters to propose other methods of disaggregation of support that can be implemented with minimal administrative burden for affected carriers and USAC. We seek to avoid complex allocations of the cost of facilities that that serve both competitive and non-competitive areas, which could be burdensome for rate-of-return carriers to implement.

365. We also invite parties to comment on how the non-supported amount is to be recovered by the carrier, assuming such expenses remain regulated expenses for ratemaking purposes. At the outset, we note that rate-of-return carriers currently receive compensation for interstate loop costs through a combination of end-user charges, e.g., SLCs and universal service support. The SLCs most rate-of-return carriers assess are at the maximum levels. Thus, in many situations, carriers would be prohibited by our current rules from increasing SLC rates to recover investment and associated expenses that will not be supported under the high-cost program in competitive areas. We invite parties to comment on the two approaches for recovery of those amounts.

366. First, we could treat the non-supported expenses as being outside the tariffed regulated revenue requirement and allow carriers to assess a detariffed regulated rate to recover those non-supported costs. This would remove those costs from the NECA pooling process. We invite parties to comment on whether the detariffed rates would be outside the prohibition on tariffing deaveraged rates in a study area, or whether a new rule should be adopted. We invite parties to comment on this alternative. Does it present any opportunities for carriers to game the tariffing process?

367. A second option would be to raise the SLC caps for a particular study area to permit the recovery of the amounts not supported by the high-cost program. We invite parties to comment on this alternative, including whether any SLC increases should be allowed only in the competitive area or

⁸⁴⁹ See *supra* section II.B (eliminating subsidies in competitive areas).

⁸⁵⁰ USTelecom/NTCA Feb. 5 *Ex Parte* Letter.

should apply to the entire study area. In the former case, a modification of the rule prohibiting deaveraging within the study area would need to be made.⁸⁵¹ Parties should particularly address the effects of deaveraging on the NECA pooling and tariffing processes. We also invite parties to comment on the effects of deaveraging on carriers' billing and operation support systems. Are there other alternatives that the Commission should consider for recovery of the non-supported investment and associated expenses?

C. Tribal Support

368. *Background.* The Commission recognizes its historic relationship with federally recognized Tribal Nations, has a longstanding policy of promoting Tribal self-sufficiency and economic development, and has developed a record of helping ensure that Tribal Nations and their members obtain access to communications services.⁸⁵² Telecommunications deployment on Tribal lands has historically been poor due to the distinct challenges in bringing connectivity to these areas.⁸⁵³

369. The Commission has observed that communities on Tribal lands have historically had less access to telecommunications services than any other segment of the population,⁸⁵⁴ and that greater financial support therefore may be needed in order to ensure the availability of broadband on Tribal lands.⁸⁵⁵ For example, the Commission utilized a tailored approach in disbursing Mobility Fund support for Tribal lands by developing the Tribal Mobility Fund.⁸⁵⁶

370. With the implementation of the improved FCC Form 477 data collection for data as of December 31, 2014, we now are in a better position to assess how to take tailored measures to address the gaps in broadband availability on Tribal lands.⁸⁵⁷ The data indicate that there is substantial variation in deployment among Tribally-owned carriers. For example, we note that at the end of 2014, two Tribally-owned carriers had deployed no broadband meeting the Commission's 10/1 Mbps speed benchmark anywhere in their study areas, and another Tribally-owned carrier reports that it had deployed to census blocks containing only 5 percent of the locations in its study area.⁸⁵⁸ However, two Tribally-owned carriers had deployed broadband meeting the 10/1 Mbps speed benchmark to census blocks containing

⁸⁵¹ 47 CFR § 69.3(e)(7).

⁸⁵² *Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes*, Policy Statement, 16 FCC Rcd 4078, 4080-81 (2000). See also *Federal-State Joint Board on Universal Service et al.*, CC Docket No. 96-45, Twelfth Report and Order, Memorandum Opinion and Order, and Further Notice of Proposed Rulemaking, 15 FCC Rcd 12208, 12212-15, paras. 4-11(2000) (*2000 Tribal Order*); see generally *Improving Communications for Native Nations*, CG Docket No. 11-41, Notice of Inquiry, 26 FCC Rcd 2672 (2011) (*Native Nations NOI*) (reviewing Commission actions regarding Native Nations).

⁸⁵³ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17818-19, para. 479. The *Mobility Fund NPRM* also noted that Tribal lands are often in rural, high-cost areas, and present distinct obstacles to the deployment of broadband infrastructure. See *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208, Notice of Proposed Rulemaking, 25 FCC Rcd 14716, 14727, para. 33 (2010) (*Mobility Fund NPRM*).

⁸⁵⁴ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17818-19, para. 479.

⁸⁵⁵ See *id.*

⁸⁵⁶ See *id.* at 17818-25, paras. 481-97.

⁸⁵⁷ Recently, the GAO released a report recommending that the Commission take additional steps to achieve the strategic objective of making broadband available to households on tribal lands. Government Accountability Office, Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands, GAO 16-222 at 30 (Jan. 2016), <http://www.gao.gov/assets/680/674906.pdf> (Jan. 2016 GAO Tribal Broadband Report).

⁸⁵⁸ See e.g. Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477> (last visited Dec. 2, 2015).

over 50 percent of the locations in their study area, while a third had deployed broadband at that benchmark to census blocks containing 99 percent of the locations in its study area.⁸⁵⁹

371. Noting the challenges faced on Tribal lands, the NTTA has submitted a proposal “designed to address the broadband deployment canyon that exists on Tribal lands by targeting additional funding to any rate-of-return carrier serving such lands.”⁸⁶⁰ NTTA requests that the Commission adopt a Tribal Broadband Factor (TBF) such that any rate-of-return carriers serving Tribal lands would receive 1.25 times the amount of any non-model-based support the carriers receive.⁸⁶¹ NTTA notes that the 1.25x TBF factor is equivalent in scope to the 25 percent credit the Commission provided in the Tribal Mobility Fund Phase I.⁸⁶²

372. To minimize the impact of the TBF on the universal service fund, NTTA recommends limiting TBF applicability to specific census blocks that include Tribal lands within the service area of a rate-of-return carrier, and that this additional support come with specific broadband build-out and certification obligations.⁸⁶³ Because build-out obligations would accompany any additional funding received through the TBF, NTTA suggests that receipt of TBF funds be voluntary.⁸⁶⁴ NTTA estimates that 80 rate-of-return carriers have in their service areas census blocks that include Tribal lands.⁸⁶⁵ NTTA estimates that, if adopted, the overall impact of the TBF on the fund will be minimal, approximately \$25 million annually, but does not present any analysis to support that estimate.⁸⁶⁶

373. *Discussion.* Given the difficulties that some carriers have experienced in deploying basic telecommunications services on Tribal lands, the Commission recognizes the important role of universal service support to foster the deployment of broadband in unserved areas. Therefore, we seek comment on adopting rules to increase support to rate-of-return carriers for census blocks that include Tribal lands and unserved with broadband meeting the Commission’s current requirements.

374. We recognize the distinct challenges in bringing communications services to Tribal lands and seek comment on how best to achieve broadband deployment on Tribal lands commensurate with that in other areas. However, the Commission has acknowledged that there are areas throughout the United States that are expensive to serve and that face challenges in demographics, weather, and geography.⁸⁶⁷

375. NTTA proposes that a TBF be applied to any non-model-based rate-of-return mechanism that the Commission adopts.⁸⁶⁸ In light of the other changes adopted today, including measures to

⁸⁵⁹ Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477> (publishing December 2014 FCC Form 477 data).

⁸⁶⁰ Letter from Godfrey Enjady, President, National Tribal Telecommunications Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (filed June 19, 2015) (June 19, 2015 NTTA Letter).

⁸⁶¹ *See id.*

⁸⁶² *See id.*

⁸⁶³ *See id.* at 3-4. NTTA and Gila River Telecommunications, Inc. (GRIT) proposed specific build-out obligations that attempt to “address the fact that many Tribal areas have little to no service at all today.” *See* Letter from Gregory W. Guice & Patrick R. Halley, Counsel, Gila River Telecommunications, Inc. & National Tribal Telecommunications Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 1 (filed Dec. 4, 2015) (Dec. 4, 2015 NTTA Letter). NTTA and GRIT propose to utilize a sliding scale to determine carrier-specific service obligations dependent upon current levels of broadband deployment. *See id.* at 2-3.

⁸⁶⁴ *See* June 19, 2015 NTTA Letter at 3.

⁸⁶⁵ *See id.* at 4.

⁸⁶⁶ *See id.*

⁸⁶⁷ *See USF/ICC Transformation Order/FNPRM*, 26 FCC Rcd at 17765-66, paras. 274-79.

⁸⁶⁸ June 19, 2015 NTTA Letter at 2.

provide a larger capital investment allowance for carriers that are below average in terms of broadband deployment, and defined deployment obligations for all rate-of-return carriers, is there a need for a separate mechanism for Tribal lands? We seek comment on whether a multiplier applied to the revised ICLS (i.e. CAF BLS) mechanism would foster broadband deployment on Tribal lands and ensure “universal service funds are used for their intended purposes.”⁸⁶⁹ Are there other approaches that would better advance of our goals?

376. If the Commission determines that a multiplier of support amounts under CAF BLS is an appropriate mechanism, what factor is appropriate? NTTA provides little support of why 1.25x is the appropriate factor to ensure broadband deployment on Tribal lands, other than pointing to the 25 percent credit the Commission provided in the Tribal Mobility Fund Phase I.⁸⁷⁰ We seek comment on the appropriate figure for the multiplier, if we were to adopt such an approach. When providing comment on the appropriate multiplier, specific data and figures are encouraged. We also emphasize that high-cost universal service support is a finite resource that must be equitably distributed in a manner that effectuates the goals of section 254.⁸⁷¹ Therefore, we seek comment on how implementation of Tribal-specific additional support may affect the resources available to extend broadband deployment to non-Tribal rate-of-return service areas with equally minimal broadband build out and located in geographies as equally hard to serve as Tribal lands.

377. We also seek comment on how best to target Tribal land-specific support to Tribal lands most in need of broadband deployment. NTTA recommends offering TBF support to all rate-of-return carriers serving Tribal lands and limiting the applicability of the TBF to specific census blocks that include Tribal lands.⁸⁷² As noted above, broadband deployment differs substantially among Tribal lands.⁸⁷³ In light of this, should all Tribal lands be eligible for additional support, or only those with lower levels of deployment? Above, we adopt a mechanism to allow a larger allowable loop expenditure for carriers below the average and to limit the allowable loop expenditure for those above the average. We note that the weighted average nationwide for rate-of-return carrier deployment of 10/1 Mbps service is currently 68 percent. Should Tribal-specific support only be provided to those rate-of-return carriers that are serving Tribal lands that report broadband deployment lower than the weighted average, based on Form 477 data? If so, should eligibility for Tribal-specific support be determined annually or on a less frequent basis? Should it be provided for a specified period of time, and if so, what is the appropriate time period?

378. If a rate-of-return carrier’s study area is mostly non-Tribal, should that carrier be eligible to receive additional Tribal-specific support? Should there be some threshold percentage, for example 50 percent, of a carrier’s service area is on Tribal lands in order to qualify for additional Tribal-specific support? We also seek comment on the appropriate data source to use to determine whether a census block contains Tribal lands. For example, should the Commission utilize maps and data distributed by the U.S. Census Bureau, or would maps and data provided by the Bureau of Indian Affairs be more appropriate? What other sources of data might the Commission use? We note that the Commission is currently engaged in consultation with the Tribal Nations of Oklahoma on the operational functionality and use of the Oklahoma Historical Map at the local and individual Tribal Nation level as part of the

⁸⁶⁹ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17852, para. 580.

⁸⁷⁰ June 19, 2015 NTTA Letter at 2.

⁸⁷¹ 47 U.S.C. § 254.

⁸⁷² See *id.* at 3.

⁸⁷³ Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477> (last visited Nov. 16, 2015).

Lifeline rulemaking proceeding.⁸⁷⁴ We seek comment on how this process may affect our determination of which census blocks would be eligible for Tribal-specific support.

379. In addition, we seek comment on what specific broadband deployment obligations should be established, if we were to adopt a mechanism to provide additional support on Tribal lands that lag behind. NTTA supports tying build-out obligations to additional support,⁸⁷⁵ and proposes specific build-out obligations tied to a sliding scale based on current broadband deployment levels to “meaningfully improve broadband connectivity on Tribal lands ... particularly in areas that are unserved today.”⁸⁷⁶ For instance, it proposes that recipients of TBF that currently have deployed 10/1 Mbps to less than 10 percent of their locations be required to provide 4/1 Mbps service to at least 25 percent of their locations within three years, and 10/1 Mbps to at least 10 percent of locations, within three years; for those that already have deployed 10/1 Mbps to at least 10 percent but not 25 percent of their locations, they would be required to offer 4/1 Mbps service to 50 percent of their locations and 10/1 Mbps service to 25 percent of locations within three years. If we were to adopt some form of additional Tribal-specific support, how should these proposals be harmonized with the mandatory deployment obligations we adopt above for all rate-of-return carriers?

380. NTTA recommends that participation in the TBF be voluntary.⁸⁷⁷ We seek comment on whether carriers should have the option to decline Tribal-specific support if the Commission determines that the provision of additional support to Tribal lands is necessary to close the broadband deployment gap in such areas. NTTA suggests that if acceptance of Tribal-specific support is conditioned on build-out obligations, such support presents a “unique opportunity to promote greater deployment of broadband to Tribal lands.”⁸⁷⁸ Should participation in such a program be mandatory?

381. In the *USF/ICC Transformation Order*, the Commission required that ETCs serving Tribal lands must meaningfully engage with Tribal governments in their supported areas.⁸⁷⁹ We seek comment on whether the offer of additional voluntary Tribal-specific support would encourage more robust ETC engagement by carriers with Tribal governments on whose lands they provide service.

382. Finally, we ask whether carriers that serve Tribal lands, in whole or in part, should not be subject to the measures to limit operating expenses and the overall budget control mechanism adopted above in the Report and Order. Parties have noted, for instance, that Tribal lands may pose unique challenges for obtaining permitting and other authorizations.⁸⁸⁰ If we were to exempt such providers from

⁸⁷⁴ See *Lifeline and Link Up Reform and Modernization, et al.*, WC Docket No. 11-42, et al., Second Further Notice of Proposed Rulemaking, Order on Reconsideration, Second Report and Order, and Memorandum Opinion and Order, 30 FCC Rcd 7818, 7903-07, paras. 257-67 (2015) (*2015 Lifeline Reform Order*), *pets. for review pending sub nom. In re: FCC 15-71*, No. 151322 (D.C. Cir. filed Oct. 16, 2015). See also *Lifeline and Link Up Reform and Modernization*, Order, WC Docket No. 11-42, DA 16-117 (rel. Feb. 2, 2016) (extending transition period before effective date of Commission interpretation of the term “former reservation in Oklahoma” for 120 days).

⁸⁷⁵ June 19, 2015 NTTA Letter at 3-4. Specifically, NTTA proposes that carriers accepting TBF funding deploy specific speed thresholds to a percentage of locations on a graduated timeline. See Letter from Gregory W. Guice & Patrick R. Halley, Counsel, Gila River Telecommunications, Inc. & National Tribal Telecommunications Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 6 (filed Nov. 18, 2015).

⁸⁷⁶ See Dec. 4, 2015 NTTA Letter at 2-3. For those carriers accepting TBF funding that have already deployed broadband, service obligations would be more aggressive. However, the NTTA proposal does not specifically set aside or target initial funding for those areas with the least broadband deployment or no broadband deployment at all. See *id.* at 2-3.

⁸⁷⁷ See *id.* at 3.

⁸⁷⁸ See *id.*

⁸⁷⁹ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17858, para. 604.

⁸⁸⁰ See, e.g., Letter from Martin L. Stern, Sacred Wind Communications, Inc., Counsel, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. At (filed Dec. 11, 2015).

those opex and overall budget limitations, how should we determine the providers subject to such limitations? For instance, to be eligible for such an exemption, should 50 percent or more of the carrier's study area be Tribal lands? What would the budgetary impact be on other rate-of-return carriers that remain on legacy support mechanisms if we were to adopt such exemptions?

D. Other Measures to Improve the Operation of the Current Rate-of-Return System

383. Some companies have informed us they have been unable to extend broadband despite their sincere desire to do so due to lack of access to capital.⁸⁸¹ Some companies have seen declining support under the existing legacy mechanisms, and others are not eligible for HCLS support due to the prior "race to the top" that the Commission took steps to address in December 2014.⁸⁸²

384. In the *April 2014 Connect America Fund FNPRM*, we questioned the long term viability of HCLS and ICLS in their current form; that is why we encouraged stakeholders to focus on creating a Connect America Fund for cost recovery that would be consistent with our core principles for reform.⁸⁸³ As noted in the Report and Order, we expect the voluntary path to the model to be an attractive option for some of the carriers that no longer receive HCLS. Moreover, our reforms to the existing ICLS mechanism will enable carriers that are, relatively speaking, lower cost than some of their peers to obtain more high-cost support for broadband only lines from CAF BLS than they would have received for voice-broadband lines under the existing HCLS mechanism. This may provide an incentive for them to migrate customers to broadband-only lines.

385. We intend to monitor the impact of these reforms over time. We are optimistic that together, these two paths will provide sufficient options for carriers to make a business case to extend broadband service where it is lacking, while minimizing disruption for those carriers that prefer to remain under the reformed legacy mechanisms. We invite commenters to submit into the record any other proposals or ideas for steps the Commission should take to provide appropriate incentives for broadband deployment to unserved areas working within the framework of the existing budget for rate-of-return areas.

386. As we evaluate ways to improve the overall framework governing rate-of-return carriers, we also believe it is appropriate to ensure that the administration of the current rate-of-return system, a function largely performed by NECA, is as efficient as possible to ensure that the costs of administration, ultimately borne by consumers, are reasonable. The role of NECA has changed over the last few decades due to a number of factors, including market changes, significant regulatory reforms, and the creation of USAC as the Administrator for the federal universal service mechanisms. We ask parties to address whether and how the Commission should amend subpart G of Part 69 to reflect these changes.⁸⁸⁴ We also seek comment on whether we should adopt rule changes to facilitate transparency into and evaluation of whether NECA's functions are accomplished in an efficient, cost effective, and neutral manner.

⁸⁸¹ See, e.g., Letter from Michael R. Romano, Senior Vice President – Policy, NTCA – The Rural Broadband Association, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Jan. 14, 2016) (Jan. 14, 2016 Clear Creek Ex Parte).

⁸⁸² We note that HCLS claims in the aggregate for rate-of-return carriers have declined from \$792 million in 2012 to an estimated \$711 million in 2015. See *2015 Universal Service Monitoring Report*, Figure 9 at A-19 http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0129/DOC-337019A1.pdf. NECA estimates that HCLS will decline further over the next ten years, absent any rule changes, from \$701 million to \$568 million. See Letter from Regina McNeil, NECA, to Rodger Wook and Suzanne Yelen, FCC, Att. "ConfidentialOutputLegacy_support_slversion1.xlsx" (filed Dec. 15, 2015).

⁸⁸³ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7136, para. 267.

⁸⁸⁴ See 47 CFR § 69.601 et seq.

E. Streamlining ETC Annual Reporting Requirements

387. In addition to the modifications to ETC annual reporting obligations adopted above, we seek comment on certain, narrowly-tailored reporting changes to improve the Commission's ability to protect against waste, fraud, and abuse. We also seek comment on additional ways to lessen regulatory reporting burdens on ETCs, particularly those that are small businesses.

388. Here, we seek comment on whether to modify or eliminate five sets of requirements: specifically, the requirements by ETCs to provide outage information, unfulfilled service requests, the number of complaints per 1,000 subscribers for both voice and broadband service, pricing for both voice and broadband, and certification that it is complying with applicable service quality standards.⁸⁸⁵ What are the regulatory costs associated with requiring such information to be included in the annual Form 481, particularly for those categories of information that may be collected in some fashion through other means (the Commission's outage reporting system and consumer complaint system)? In the case of outage reporting, we note that all carriers are under a separate obligation to report outages under part 4 of our rules.⁸⁸⁶ Are the ETC-specific rules therefore duplicative, and can other means of collection be improved?

389. To the extent commenters believe such information should continue to be collected from ETCs, we ask for specific suggestions on how to modify these requirements so that the information is more useful to analyze, both on an individual ETC and aggregate basis.

390. The underlying purpose of the unfulfilled service request reporting rule was to monitor rate-of-return carriers' progress in deploying broadband pursuant to the reasonable request standard. We have concerns, however, that the rule, as implemented, is not adequately advancing that purpose. Similarly, we have found the information regarding complaints to be of limited value, in large part because it is not clear that ETCs are reporting such information in a consistent fashion. If we were to retain some form of reporting requirements for complaints and unfulfilled requests, should we implement more specific standardized instructions regarding the reporting of complaints and unfulfilled requests so that the information can be analyzed and aggregated in a more useful fashion? For the reporting of pricing information, would it be less burdensome if ETCs were to report only the price offering that meets or exceeds our minimum requirements, and not the full range of service offerings?

391. We also seek comment on whether, in light of our experience with the reporting requirements to date, we should modify or eliminate the requirement that an ETC certify it is complying with applicable service quality standards and consumer protection rules. Absent greater specificity, affected ETCs may not know what standards and rules are "applicable." Should we clarify that the obligation applies only to legally binding rules and/or voluntary guidelines with which the ETC has agreed to comply? If so, how should the ETC report its compliance? Are other clarifications or modifications to the rule appropriate?

392. Above we direct USAC to establish an online tool to permit access to all information submitted by ETCs, including Form 481 data. USAC shall ensure that state regulators, and Tribal governments where applicable, will have access full Form 481 data filings, including any data marked confidential. In light of that change, we propose to eliminate ETCs' requirement to file a duplicate copy of Form 481 with states and/or Tribal governments. Instead, they would make a single filing with USAC, and both the Commission and other regulators would obtain the information through online access. We tentatively conclude that centralizing all filing requirements with USAC would be beneficial for states and Tribal governments as it would reduce the need to sort through, in some cases, dozens of paper

⁸⁸⁵ See 47 CFR §§ 54.313(a)(2), 54.422(b)(1) (outage reporting); 47 CFR § 54.313(a)(3) (unfulfilled service requests); 47 CFR §§ 54.313(a)(4), 54.422(b)(2) (consumer complaints); 47 CFR §§ 54.313(a)(7), 54.422(b)(2) (pricing); 47 CFR § 54.313(a)(5) 54.422(b)(3) (service quality standards).

⁸⁸⁶ See 47 CFR § 4.1 *et seq.*

documents containing the same information that would be available more readily through an online tool. Interested parties have suggested that the Commission should reduce or eliminate duplicate filings of the same information.⁸⁸⁷ Having one place for ETCs to file their annual reports, instead of three or more, may reduce the filing burden on ETCs. We seek comment on this tentative conclusion.

393. Lastly, we seek comment on modifying or eliminating any other reporting requirements applicable to all ETCs that have broadband obligations as a condition of receiving high-cost support in order to further improve the alignment of carriers' obligations with our ability to monitor them through our reporting requirements.

V. SEVERABILITY

394. All of the rules that are adopted in this Order are designed to work in unison to ensure the ubiquitous deployment of voice and broadband-capable networks to all Americans. However, each of the separate reforms we undertake in this Order serve a particular function toward the goal of ubiquitous voice and broadband service. Therefore, it is our intent that each of the rules adopted herein shall be severable. If any of the rules is declared invalid or unenforceable for any reason, it is our intent that the remaining rules shall remain in full force and effect.

VI. PROCEDURAL MATTERS

A. Paperwork Reduction Act Analysis

395. This document contains new information collection requirements subject to the PRA. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002,⁸⁸⁸ we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees. We describe impacts that might affect small businesses, which includes most businesses with fewer than 25 employees, in the Final Regulatory Flexibility Analysis (FRFA) in Appendix B, *infra*.

B. Congressional Review Act

396. The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act.⁸⁸⁹

C. Final Regulatory Flexibility Analysis

397. The Regulatory Flexibility Act of 1980 (RFA) requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." Accordingly, we have prepared a FRFA concerning the possible impact of the rule changes contained in the Report and Order on small entities. The FRFA is set forth in Appendix D.

D. Initial Paperwork Reduction Act Analysis

398. As required by the RFA, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the FNPRM. This analysis is found in Appendix C. The FNPRM seeks comment on a

⁸⁸⁷ See Letter of James J. Kalil, Executive Committee Member, Small Company Coalition, to Commissioner Michael O'Rielly, WC Docket No. 10-90 (filed June 1, 2015) (urging the Commission to allow data sharing between agencies and eliminate the requirement to send copies of filings to multiple agencies).

⁸⁸⁸ Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4).

⁸⁸⁹ *See* 5 U.S.C. § 801(a)(1)(A).

potential new or revised information collection requirement. If the Commission adopts any new or revised information collection requirement, the Commission will publish a separate notice in the Federal Register inviting the public to comment on the requirement, as required by the Paperwork Reduction Act of 1995, Public Law 104-13 (44 U.S.C. §§ 3501-3520). In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, 44 U.S.C. § 3506(c)(4), the Commission seeks specific comment on how it might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

E. Ex Parte Presentations

399. *Permit-But-Disclose.* The proceeding this Second FNPRM initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.⁸⁹⁰ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

F. Comment Filing Procedures

400. *Comments and Replies.* Pursuant to sections 1.415 and 1.419 of the Commission’s rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission’s Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-

⁸⁹⁰ 47 CFR §§ 1.1200 *et seq.*

A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington, DC 20554.

401. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

402. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with section 1.49 and all other applicable sections of the Commission's rules. We direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission. We also strongly encourage parties to track the organization set forth in the FNPRM in order to facilitate our internal review process.

403. *Additional Information.* For additional information on this proceeding, contact Suzanne Yelen of the Wireline Competition Bureau, Industry Analysis and Technology Division, Suzanne.Yelen@fcc.gov, (202) 418-7400 or Alexander Minard of the Wireline Competition Bureau, Technology Access Policy Division, Alexander.Minard@fcc.gov, (202) 418-7400.

VII. ORDERING CLAUSES

404. Accordingly, IT IS ORDERED, pursuant to the authority contained in sections 1, 2, 4(i), 5, 10, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 405 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151, 152, 154(i), 155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, 405, 1302, and sections 1.1, 1.3, 1.421, 1.427, and 1.429 of the Commission's rules, 47 CFR §§ 1.1, 1.3, 1.421, 1.427, and 1.429, that this Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking IS ADOPTED, effective thirty (30) days after publication of the text or summary thereof in the Federal Register, except for those rules and requirements involving Paperwork Reduction Act burdens, which shall become effective immediately upon announcement in the Federal Register of OMB approval. It is our intention in adopting these rules that if any of the rules that we retain, modify, or adopt herein, or the application thereof to any person or circumstance, are held to be unlawful, the remaining portions of the rules not deemed unlawful, and the application of such rules to other persons or circumstances, shall remain in effect to the fullest extent permitted by law.

405. IT IS FURTHER ORDERED that Parts 51, 54, 65, and 69 of the Commission's rules, 47 CFR Parts 51, 54, 65, and 69, ARE AMENDED as set forth in Appendix B, and such rule amendments SHALL BE EFFECTIVE thirty (30) days after publication of the rules amendments in the Federal Register, except to the extent they contain information collections subject to PRA review. The rules that contain information collections subject to PRA review SHALL BECOME EFFECTIVE immediately upon announcement in the Federal Register of OMB approval.

406. IT IS FURTHER ORDERED that pursuant to Section 1.3 of the Commission's rules, 47 CFR § 1.3, sections 65.300 and 65.303 of the Commission's rules, 47 CFR § 65.300, 65.303, are WAIVED to the extent provided herein.

407. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 2, 4(i), 5, 10, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 405 of the Communications

Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151, 152, 154(i), 155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, 405, 1302, and sections 1.1, 1.3, 1.421, 1.427, and 1.429 of the Commission's rules, 47 CFR §§ 1.1, 1.3, 1.421, 1.427, and 1.429, NOTICE IS HEREBY GIVEN of the proposals and tentative conclusions described in this Further Notice of Proposed Rulemaking.

408. IT IS FURTHER ORDERED that pursuant section 1.429(i) of the Commission's rules, 47 CFR § 1.429(i), that the Petition for Reconsideration and Clarification of the National Exchange Carrier Association, Inc., Organization for the Promotion and Advancement of Small Telecommunications Companies, and Western Telecommunications Alliance, filed December 29, 2011, is DISMISSED and DENIED to the extent provided herein.

409. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

410. IT IS FURTHER ORDERED, that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis and the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 65 as follows:

**PART 65—INTERSTATE RATE OF RETURN PRESCRIPTION PROCEDURES AND
METHODOLOGIES**

1. The authority citation for part 65 is revised to read as follows:

AUTHORITY: 47 U.S.C. 151, 154, 201, 202, 203, 204, 205, 218, 219, 220, 403.

2. In §65.450, revise paragraph (d) and add new paragraph (e) to read as follows:

§65.450 Net income.

* * * * *

(d) Except for the allowance for funds used during construction and interest related to customer deposits, the amounts recorded as nonoperating income and expenses and taxes (Account 7300 and 7400) and interest and related items (Account 7500) and extraordinary items (Account 7600) shall not be included unless this Commission specifically determines that particular items recorded in those accounts shall be included.

(e) For purposes of determining whether an expense is recognized by the Commission as “necessary to the provision of these services” under paragraph (a) of this section, the expense must be used and useful and a prudent expenditure. The Commission specifically provides that the following expenses are not necessary to the provision of interstate telecommunications services regulated by the Commission:

(1) Personal travel; gifts to employees; childcare; housing allowances or other forms of mortgage or rent assistance for employees; personal expenses of employees, board members, family members of employees and board members, contractors, or any other individuals affiliated with the incumbent LEC, including but not limited to personal expenses for housing, such as rent or mortgages; personal use of company-owned housing, buildings, or facilities used for entertainment purposes by employees, board members, family members of employees and board members, contractors, or any other individuals affiliated with the incumbent local exchange carrier;

(2) Entertainment; artwork and other objects which possess aesthetic value; tangible property not logically related or necessary to the offering of voice or broadband services;

(3) Aircraft, watercraft, and other motor vehicles designed for off-road use, except insofar as necessary to access inhabited portions of the study area not reachable by motor vehicles travelling on roads; any vehicles provided to employees, board members, family members of employees and board members, contractors, or any other individuals affiliated with the incumbent local exchange carrier for personal use;

(4) Cafeterias and dining facilities; alcohol and food, including but not limited to meals to celebrate personal events, such as weddings, births, or retirements, except that a reasonable amount for food shall be allowed for work-related travel;

(5) Political contributions; charitable donations; scholarships; membership fees and dues in clubs and organizations; sponsorships of conferences or community events; and

(6) Penalties or fines for statutory or regulatory violations; penalties or fees for any late payments on debt, loans, or other payments.

3. Add new paragraph (d) to §65.830 to read as follows:

§65.830 Deducted items.

* * * * *

(d) The following assets shall also be deducted from the interstate rate base:

- (1) Artwork and other objects which possess aesthetic value;
- (2) Tangible property not logically related or necessary to the offering of voice or broadband services;
- (3) Personal residences and property used for entertainment purposes;
- (4) Aircraft, watercraft, and other motor vehicles designed for off-road use, except insofar as necessary to access inhabited portions of the study area not reachable by motor vehicles travelling on roads;
- (5) any vehicles provided to employees, board members, family members of employees and board members, contractors, or any other individuals affiliated with the incumbent local exchange carrier for personal use; and
- (6) Cafeterias and dining facilities.

APPENDIX B

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 51, 54, 65, and 69 as follows:

PART 51—INTERCONNECTION

1. The authority citation for part 51 is revised to read as follows:

AUTHORITY: 47 U.S.C. 151-55, 201-05, 207-09, 218, 220, 225-27, 251-54, 256, 271, 303(r), 332, 1302.

2. Add new paragraph (f)(4) to §51.917 to read as follows:

§51.917 Revenue recovery for Rate-of-Return Carriers.

* * * * *

(f) * * *

(4) A Rate-of-Return Carrier must impute an amount equal to the Access Recovery Charge for each Consumer Broadband-Only Loop line that receives support pursuant to §54.901 of this chapter, with the imputation applied before CAF ICC recovery is determined. The per line per month imputation amount shall be equal to the Access Recovery Charge amount prescribed by paragraph (e) of this section, consistent with the residential or single-line business or multi-line business status of the retail customer.

PART 54—UNIVERSAL SERVICE

1. The authority citation for part 54 is revised to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

2. Remove §54.301.
3. Add §54.303 to subpart D to read as follows:

§54.303 Eligible Capital Investment and Operating Expenses

- (a) Eligible Operating Expenses. Each study area's eligible operating expenses for purposes of calculating universal service support pursuant to subparts K and M of this part shall be adjusted as follows:

- (1) Total eligible annual operating expenses per location shall be limited as follows:

Calculate $\text{Exp}(\hat{Y} + 1.5 * \text{mean square error of the regression})$, where

$$\hat{Y} = \hat{\alpha} + \hat{\beta}_1 X_1 + \hat{\beta}_2 X_2 + \hat{\beta}_3 X_3,$$

$\hat{\alpha}$, $\hat{\beta}_1$, $\hat{\beta}_2$, and $\hat{\beta}_3$ are the coefficients from the regression,

X_1 is the natural log of the number of housing units in the study area,

X_2 is the natural log of the number of density (number of housing units per square mile), and

X_3 is the square of the natural log of the density

- (2) Eligible operating expenses are the sum of Cable and Wire Facilities Expense, Central Office Equipment Expense, Network Support and General Expense, Network Operations Expense, Limited Corporate Operations Expense, Information Origination/Termination Expense, Other Property Plant and Equipment Expenses, Customer Operations Expense: Marketing, and Customer Operations Expense: Services.
 - (3) For purposes of this section, the number of housing units will be determined per the most recently available U.S Census data for each census block in that study area. If a census block is partially within a study area, the number of housing units in that portion of the census block will be determined based upon the percentage geographic area of the census block within the study area.
 - (4) Notwithstanding the provisions of paragraph (a) of this section, total eligible annual operating expenses for 2016 will be limited to the total eligible annual operating expenses as defined in this section plus one half of the amount of total eligible annual expense as calculated prior to the application of this section.
 - (5) For any study area subject to the limitation described in this paragraph, a required percentage reduction will be calculated for that study area's total eligible annual operating expenses. Each category or account used to determine that study area's total eligible annual operating expenses will then be reduced by this required percentage reduction.
- (b) Loop Plant Investment Allowances. Data submitted by rate-of-return carriers for purposes of obtaining high-cost support under subparts K and M of this part may include any Loop Plant Investment as described in paragraph (c)(1) of this section and any Excess Loop Plant Investment as described in paragraph (h) of this section, but may not include amounts in excess of the Annual Allowed Loop Plant Investment (AALPI) as described in subsection (d) of this section. Amounts in excess of the AALPI will be removed from the categories or accounts described in paragraph (c)(1) of this section either on a direct basis when the amounts of the new loop plant investment can be directly assigned to a category or account, or on a pro-rata basis in accordance with each category or account's proportion to the total amount in each of the categories and accounts described in paragraph (c)(1) of this section when the new loop plant cannot be directly assigned. This limitation shall apply only with respect to Loop Plant Investment incurred after the effective date of this rule. If a carrier's required Loop Plant Investment exceeds the limitations set forth in this section as a result of deployment obligations in §54.308(a)(2), the carrier's Total Allowed Loop Plant Investment will be increased to the actual Loop Plant Investment required by the carrier's deployment obligations, subject to the limitations of the Construction Allowance Adjustment in paragraph (f) of this section.
- (c) Definitions. For purposes of determining loop plant investment allowances, the following definitions apply:
- (1) *Loop Plant Investment* includes amounts booked to the accounts used for subparts K and M of this part, loop plant investment.
 - (2) *Total Loop Plant Investment* equals amounts booked to the categories described in paragraph (c)(1) of this section, adjusted for inflation using the Department of Commerce's Gross Domestic

Product Chain-type Price Index (GDP-CPI), as of December 31 of the Reference Year. Inflation adjustments shall be based on vintages where possible or otherwise calculated based on the year plant was put in service.

- (3) *Total Allowed Loop Plant Investment* equals Total Loop Plant Investment multiplied by the Loop Depreciation Factor.
- (4) *Loop Depreciation Factor* equals the ratio of total loop accumulated depreciation to gross loop plant during the Reference Year.
- (5) *Reference Year* is the year prior to the year the AALPI is determined.
- (d) *Determination of AALPI:* A carrier subject to this section shall have an AALPI set equal to its Total Loop Plant Investment for each study area multiplied by an AALPI Factor equal to $(0.15 \text{ times the Loop Depreciation Factor} + 0.05)$. The Administrator will calculate each rate of return carrier's AALPI for each Reference Year.
- (e) *Broadband Deployment AALPI Adjustment:* The AALPI calculated in paragraph (d) of this section shall be adjusted by the Administrator based upon the difference between a carrier's broadband availability for each study area as reported on that carrier's most recent Form 477, and the weighted national average broadband availability for all rate-of-return carriers based on Form 477 data, as announced annually by the Wireline Competition Bureau in a Public Notice. For every percentage point that the carrier's broadband availability exceeds the weighted national average broadband availability for the Reference Year, that carrier's AALPI will be reduced by one percentage point. For every percentage point that the carrier's broadband availability is below the weighted national average broadband availability for the Reference Year, that carrier's AALPI will be increased by one percentage point.
- (f) *Construction Allowance Adjustment:* Notwithstanding any other provision of this section, a rate-of-return carrier may not include in data submitted for purposes of obtaining high-cost support under subpart K or subpart M of this part any Loop Plant Investment associated with new construction projects where the average cost of such project per location passed exceeds a Maximum Average Per Location Construction Project Limitation as determined by the Administrator according to the following formula:
 - (1) Maximum Average Per Location Construction Project Loop Plant Investment Limitation equals the inflation adjusted equivalent to \$10,000 in the Reference Year calculated by multiplying \$10,000 times the applicable annual GDP-CPI. This inflation adjusted amount will be normalized across all study areas by multiplying the product above by (the Loop Cap Adjustment Factor times the Construction Limit Factor)

where

the Loop Cap Adjustment Factor equals the lesser of 1.0 or the annualized monthly per loop limit described in §54.302 (i.e., \$3,000) divided by the unadjusted per loop support amount for the study area (the annual HCLS and CAF-BLS support amount per loop in the study not capped by §54.302)

and

the Construction Limitation Factor equals the study area Total Loop Investment per Location divided by the overall Total Loop Investment per Location for all rate-of-return study areas.

-
- (2) This limitation shall apply only with respect to Loop Plant Investment for which invoices were received by the carrier after the effective date of this rule.
 - (3) A carrier subject to this section will maintain documentation necessary to demonstrate compliance with the above limitation.
- (g) For each Reference Year, the Administrator will publish the following data for each study area of each rate-of-return carrier:
- (1) AALPI
 - (2) The Broadband Deployment AALPI Adjustment
 - (3) The Maximum Average Per Location Construction Project Loop Plant Investment Limitation
 - (4) The Loop Cap Adjustment Factor
 - (5) The Construction Limit Factor
- (h) *Excess Loop Plant Investment Carry Forward:* Loop Plant Investment in a Reference Year in excess of the AALPI may be carried forward to future years and included in AALPI for such subsequent years, but may not cause the AALPI to exceed the Total Allowed Loop Plant Investment.
- (i) A carrier subject to this section will maintain subsidiary records of accumulated Excess Loop Plant Investment for accounts referenced in paragraph (c)(1) of this section in addition to the corresponding depreciation accounts. In the event a carrier makes Loop Plant Investment for an account at a level below the AALPI for the account, the carrier may reduce accumulated Excess Loop Plant Investment effective for the Reference Year by an amount up to, but not in excess of the amount by which AALPI for the Reference Year exceeds Loop Plant Investment for the account during the same year.
- (j) *Treatment of Unused AALPI:* In the event a carrier's Loop Plant Investment is below its AALPI in a given Reference Year, there will be no carry forward to future years of unused AALPI. The Administrator's recalculation of AALPI for each Reference Year will reflect the revised AALPI, Loop Depreciation Factor, Total Loop Plant Investment, and Total Allowed Loop Plant Investment for the Reference Year.
- (k) *Special Circumstances:* The AALPI for Loop Plant Investment may be adjusted by the Administrator by adding the applicable adjustment below to the amount of AALPI for the year in which additions to plant are booked to the accounts described in paragraph (c)(1) of this section, associated with any of the following:
- (1) Geographic areas within the study area where there are currently no existing wireline loop facilities;
 - (2) Geographic areas within the study area where grant funds are used for Loop Plant Investment
 - (3) Geographic areas within the study area for which loan funds were disbursed for the purposes of Loop Plant Investment before the effective date of this rule; and
 - (4) Construction projects for which the carrier, prior to the effective date of this rule, had awarded a contract to a vendor for a loop plant construction project within the study area.
- (l) The Administrator will not make these adjustments without appropriate documentation from the carrier.
- (m) *Minimum AALPI:* If a carrier has an AALPI that is less than \$4 million in any given year, the carrier shall be allowed to increase its AALPI for that year to the lesser of \$4 million or its Total Allowed Loop Plant Investment.
4. Revise §54.305(a) to read as follows:

§54.305 Sale or transfer of exchanges.

(a) The provisions of this section shall not be used to determine support for any price cap incumbent local exchange carrier or a rate-of-return carrier, as that term is defined in §54.5, that is affiliated with a price cap incumbent local exchange carrier.

* * * * *

5. Revise paragraph (a) of §54.308 to read as follows:

§54.308 Broadband public interest obligations for recipients of high-cost support.

(a) Rate-of-return carrier recipients of high-cost support are required to offer broadband service, at speeds described below, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas, at rates that are reasonably comparable to rates for comparable offerings in urban areas. For purposes of determining reasonable comparability of rates, recipients are presumed to meet this requirement if they offer rates at or below the applicable benchmark to be announced annually by public notice issued by the Wireline Competition Bureau.

(1) Carriers that elect to receive Connect America Fund-Alternative Connect America Cost Model (CAF-ACAM) support pursuant to §54.311 are required to offer broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream to a defined number of locations as specified by public notice, with a minimum usage allowance of 150 GB per month, subject to the requirement that usage allowances remain consistent with median usage in the United States over the course of the ten-year term. In addition, such carriers must offer other speeds to subsets of locations, as specified below:

(i) *Fully Funded Locations.* Fully funded locations are those locations identified by the Alternative-Connect America Cost Model (A-CAM) where the average cost is above the funding benchmark and at or below the funding cap. Carriers are required to offer broadband speeds to locations that are fully funded, as specified by public notice at the time of authorization, as follows:

(A) Carriers with a state-level density of more than 10 housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 75 percent of all fully funded locations in the state by the end of the ten-year period.

(B) Carriers with a state-level density of 10 or fewer, but more than five, housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 50 percent of fully funded locations in the state by the end of the ten-year period.

(C) Carriers with a state-level density of five or fewer housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 25 percent of fully funded locations in the state by the end of the ten-year period.

(ii) *Capped Locations.* Capped locations are those locations in census blocks for which A-CAM calculates an average cost per location above the funding cap. Carriers are required to offer broadband speeds to locations that are receiving capped support, as

specified by public notice at the time of authorization, as follows:

(A) Carriers with a state-level density of more than 10 housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 4 Mbps downstream/1 Mbps upstream to 50 percent of all capped locations in the state by the end of the ten-year period.

(B) Carriers with a state-level density of 10 or fewer housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 4 Mbps downstream/1 Mbps upstream to 25 percent of capped locations in the state by the end of the ten-year period.

(C) Carriers shall provide to all other capped locations, upon reasonable request, broadband at actual speeds of at least 4 Mbps downstream/1 Mbps upstream.

(2) Rate-of-return recipients of Connect America Fund Broadband Loop Support (CAF BLS) shall be required to offer broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream, over a five-year period, to a defined number of unserved locations as specified by public notice, as determined by the following methodology:

(i) Each rate-of-return carrier is required to target a defined percentage of its five-year forecasted CAF-BLS support to the deployment of broadband service to locations that are unserved with 10 Mbps downstream/1 Mbps upstream broadband service as follows:

(A) Rate-of-return carriers with less than 20 percent deployment of 10/1 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to utilize 35 percent of their five-year forecasted CAF-BLS support to extend broadband service where it is currently lacking.

(B) Rate-of-return carriers with more than 20 percent but less than 40 percent deployment of 10/1 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to utilize 25 percent of their five-year forecasted CAF-BLS support to extend broadband service where it is currently lacking.

(C) Rate-of-return carriers with more than 40 percent but less than 80 percent deployment of 10/1 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to utilize 20 percent of their five-year forecasted CAF-BLS support to extend broadband service where it is currently lacking.

(ii) The deployment obligation shall be determined by dividing the amount of support set forth in (i) by a cost per location figure based on one of two methodologies, at the carrier's election:

(A) The higher of (1) the weighted average unseparated cost per loop for carriers of similar density that offer 10/1 Mbps or better broadband service to at least 95 percent of locations, based on the most current FCC Form 477 data as determined by the Wireline Competition Bureau, but excluding carriers subject to the current \$250 per line per month cap set forth in §54.302 and carriers subject to limitations on operating expenses set forth in §54.303, or (2) 150% of the weighted average of the cost per loop for carriers of similar density, but excluding carriers subject to the current \$250 per line per month cap set forth in §54.302 and carriers subject to limitations on operating expenses set forth in §54.303, with a similar level of deployment of 10/1 Mbps or better broadband

based on the most current FCC Form 477 data, as determined by Wireline Competition Bureau; or

(B) The average cost per location for census blocks lacking 10/1 Mbps broadband service in the carrier's study area as determined by the A-CAM.

(iii) Restrictions on Deployment Obligations.

(A) No rate-of-return carrier shall deploy terrestrial wireline technology in any census block if doing so would result in total support per line in the study area to exceed the \$250 per-line per-month cap in §54.302.

(B) No rate-of-return carrier shall deploy terrestrial wireline technology to unserved locations to meet this obligation if that would exceed the per location/per project capital investment allowance set forth in §54.303(f)(1).

(iv) Future Deployment Obligations. Prior to publishing the deployment obligations for subsequent five-year periods, the Administrator shall update the unseparated average cost per loop amounts for carriers with 95 percent or greater deployment of the then-current standard, based on the then-current NECA cost data, and the Wireline Competition Bureau shall examine the density groupings and make any necessary adjustments based on then-current U.S. Census data.

* * * * *

6. Add §54.311 to subpart D to read as follows:

§54.311 Connect America Fund Alternative-Connect America Cost Model Support.

(a) *Voluntary Election of Model-Based Support.* A rate-of-return carrier (as that term is defined in §54.5) receiving support pursuant to subparts K or M of this part shall have the opportunity to voluntarily elect, on a state-level basis, to receive Connect America Fund-Alternative Connect America Cost Model (CAF-ACAM) support as calculated by the Alternative-Connect America Cost Model (A-CAM) adopted by the Commission in lieu of support calculated pursuant to subparts K or M of this part. Any rate-of-return carrier not electing support pursuant to this section shall continue to receive support calculated pursuant to those mechanisms as specified in Commission rules for high-cost support.

(b) *Geographic areas eligible for support.* CAF-ACAM model-based support will be made available for a specific number of locations in census blocks identified as eligible for each carrier by public notice. The eligible areas and number of locations for each state identified by the public notice shall not change during the term of support identified in paragraph (c) of this section.

(c) *Term of support.* CAF-ACAM model-based support shall be provided to the carriers that elect to make a state-level commitment for a term that extends until December 31, 2026.

(d) *Interim deployment milestones.* Recipients of CAF-ACAM model-based support must complete deployment to 40 percent of fully funded locations by the end of 2020, to 50 percent of fully funded locations by the end of 2021, to 60 percent of fully funded locations by the end of 2022, to 70 percent of fully funded locations by the end of 2023, to 80 percent of fully funded locations by the end of 2024, to 90 percent of fully funded locations by the end of 2025, and to 100 percent of fully funded locations by the end of 2026. By the end of 2026, carriers must complete deployment of broadband meeting a standard of at least 25 Mbps downstream/3 Mbps upstream to the requisite number of locations specified in §54.308(a)(1)(i). Compliance shall be determined based on the total number of fully funded locations in a state. Carriers that complete deployment to at least 95 percent of the requisite number of locations will be deemed to be in compliance with their deployment obligations. The remaining locations that receive capped support are subject to the standard specified in §54.308(a)(1)(ii).

(e) *Transition to CAF-ACAM Support.* Carriers electing CAF-ACAM model-based support whose final model-based support is less than the carrier's high-cost loop support and interstate common line support disbursements for 2015, will transition to model-based support as follows:

(1) If the difference between a carrier's model-based support and its 2015 high-cost support, as determined in paragraph (e)(4) of this section, is 10 percent or less, it will receive, in addition to model-based support, 50 percent of that difference in year one, and then will receive model support in years two through ten.

(2) If the difference between a carrier's model-based support and its 2015 high-cost support, as determined in paragraph (e)(4) of this section, is 25 percent or less, but more than 10 percent, it will receive, in addition to model-based support, an additional transition payment for up to four years, and then will receive model support in years five through ten. The transition payments will be phased-down 20 percent per year, provided that each phase-down amount is at least five percent of the total 2015 high-cost support amount. If 20 percent of the difference between a carrier's model-based support and its 2015 high-cost support is less than five percent of the total 2015 high-cost support amount, the transition payments will be phased-down five percent of the total 2015 high-cost support amount each year.

(3) If the difference between a carrier's model-based support and its 2015 high-cost support, as determined in paragraph (e)(4) of this section, is more than 25 percent, it will receive, in addition to model-based support, an additional transition payment for up to nine years, and then will receive model support in year ten. The transition payments will be phased-down ten percent per year, provided that each phase-down amount is at least five percent of the total 2015 high-cost support amount. If ten percent of the difference between a carrier's model-based support and its 2015 high-cost support is less than five percent of the total 2015 high-cost support amount, the transition payments will be phased-down five percent of the total 2015 high-cost support amount each year.

(4) The carrier's 2015 support for purposes of the calculation of transition payments is the amount of high-cost loop support and interstate common line support disbursed to the carrier for 2015 without regard to prior period adjustments related to years other than 2015, as determined by the Administrator as of January 31, 2016 and publicly announced prior to the election period for the voluntary path to the model.

7. Amend §54.313 by removing and reserving paragraphs (a)(1), (e)(2)(i) and (e)(2)(iii), revising paragraphs (a)(10), (e)(1), (e)(2) introductory text, (f)(1) introductory text, (f)(1)(i) and (f)(1)(iii), and removing paragraphs (e)(3) through (e)(6).

§54.313 Annual reporting requirements for high-cost recipients.

(a) * * *

(10) *Beginning July 1, 2013.* A certification that the pricing of the company's voice services is no more than two standard deviations above the applicable national average urban rate for voice service, as specified in the most recent public notice issued by the Wireline Competition Bureau and Wireless Telecommunications Bureau; and

* * * * *

(e) * * *

(1) On July 1, 2016, a list of the geocoded locations already meeting the §54.309 public interest obligations at the end of calendar year 2015, and the total amount of Phase II support, if any, the price cap carrier used for capital expenditures in 2015.

(2) On July 1, 2017, and every year thereafter ending July 1, 2021, the following information:

* * * * *

(f) * * *

(1) *Beginning July 1, 2015 and Every Year Thereafter.* The following information:

(i) A certification that it is taking reasonable steps to provide upon reasonable request broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas as determined in an annual survey, and that requests for such service are met within a reasonable amount of time.

(ii) * * *

(iii) A certification that it bid on category one telecommunications and Internet access services in response to all reasonable requests in posted FCC Form 470s seeking broadband service that meets the connectivity targets for the schools and libraries universal service support program for eligible schools and libraries (as described in §54.501) within its service area, and that such bids were at rates reasonably comparable to rates charged to eligible schools and libraries in urban areas for comparable offerings.

* * * * *

8. Add §54.316 to subpart D to read as follows:

§54.316 Broadband deployment reporting and certification requirements for high-cost recipients.

(a) *Broadband Deployment Reporting.* Rate-of Return ETCs and ETCs that elect to receive Connect America Phase II model-based support shall have the following broadband reporting obligations:

- (1) Recipients of high-cost support with defined broadband deployment obligations pursuant to §54.308(a) or §54.310(c) shall provide to the Administrator on a recurring basis information regarding the locations to which the eligible telecommunications carrier is offering broadband service in satisfaction of its public interest obligations, as defined in either §54.308 or §54.309.
- (2) Recipients subject to the requirements of §54.308(a)(1) shall report the number of locations for each state and locational information, including geocodes, separately indicating whether they are offering service providing speeds of at least 4 Mbps downstream/1 Mbps upstream, 10 Mbps downstream/1 Mbps upstream, and 25 Mbps downstream/3 Mbps upstream.
- (3) Recipients subject to the requirements of §54.308(a)(2) shall report the number of newly served locations for each study area and locational information, including geocodes, separately indicating whether they are offering service providing speeds of at least 4 Mbps downstream/1 Mbps upstream, 10 Mbps downstream/1 Mbps upstream, and 25 Mbps downstream/3 Mbps upstream.

- (4) Recipients subject to the requirements of §54.310(c) shall report the number of locations for each state and locational information, including geocodes, where they are offering service providing speeds of at least 10 Mbps downstream/1 Mbps upstream.
- (b) *Broadband Deployment Certifications* Rate-of Return ETCs and ETCs that elect to receive Connect America Phase II model-based support shall have the following broadband deployment certification obligations:
- (1) *Price cap carriers that elect to receive Connect America Phase II model-based support shall provide:* No later than March 1, 2017, and every year thereafter ending on no later than March 1, 2021, a certification that by the end of the prior calendar year, it was offering broadband meeting the requisite public interest obligations specified in §54.309 to the required percentage of its supported locations in each state as set forth in §54.310(c).
- (2) *Rate-of-return carriers electing CAF-ACAM support pursuant to § 54.311 shall provide:*
- (i) No later than March 1, 2021, and every year thereafter ending on no later than March 1, 2027, a certification that by the end of the prior calendar year, it was offering broadband meeting the requisite public interest obligations specified in §54.308 to the required percentage of its fully funded locations in the state, pursuant to the interim deployment milestones set forth in §54.311(d).
- (ii) No later than March 1, 2027, a certification that as of December 31, 2026, it was offering broadband meeting the requisite public interest obligations specified in §54.308 to all of its fully funded locations in the state and to the required percentage of its capped locations in the state.
- (3) *Rate-of-return carriers receiving support pursuant to subparts K and M of this part shall provide:*
- (i) No later than March 1, 2022, a certification that it fulfilled the deployment obligation meeting the requisite public interest obligations as specified in §54.308(a)(2) to the required number of locations as of December 31, 2021.
- (ii) Every subsequent five-year period thereafter, a certification that it fulfilled the deployment obligation meeting the requisite public interest obligations as specified in §54.308(a)(4).

(c) *Filing deadlines*

- (1) In order for a recipient of high-cost support to continue to receive support for the following calendar year, or retain its eligible telecommunications carrier designation, it must submit the annual reporting information required by March 1 as described in paragraphs (a) and (b) of this section. Eligible telecommunications carriers that file their reports after the March 1 deadline shall receive a reduction in support pursuant to the following schedule:
- (i) An eligible telecommunications carrier that files after the March 1 deadline, but by March 8, will have its support reduced in an amount equivalent to seven days in support;
- (ii) An eligible telecommunications carrier that files on or after March 9 will have its support reduced on a pro-rata daily basis equivalent to the period of non-compliance, plus the minimum seven-day reduction,
- (2) *Grace period.* An eligible telecommunications carrier that submits the annual reporting information required by this section after March 1 but before March 5 will not receive a reduction in support if the eligible telecommunications carrier and its holding company, operating companies, and affiliates, as reported pursuant to §54.313(a)(8) in their report due July 1 of the prior year, have not missed the March 1 deadline in any prior year.

9. In §54.319, revise paragraph (a) and add paragraphs (d) through (h) to read as follows:

§54.319 Elimination of high-cost support in areas with an unsubsidized competitor.

- (a) High-cost universal service support provided pursuant to subparts K and M of this part shall be eliminated in an incumbent rate-of-return local exchange carrier study area where an unsubsidized competitor, or combination of unsubsidized competitors, as defined in §54.5, offer(s) to 100 percent of the residential and business locations in the study area voice and broadband service at speeds of at least 10 Mbps downstream/1 Mbps upstream, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas, at rates that are reasonably comparable to rates for comparable offerings in urban areas.

* * * * *

- (d) High-cost universal service support pursuant to subpart K of this part shall be eliminated for those census blocks of an incumbent rate-of-return local exchange carrier study area where an unsubsidized competitor, or combination of unsubsidized competitors, as defined in §54.5, offer(s) voice and broadband service meeting the public interest obligations in §54.308(a)(2) to at least 85 percent of residential locations in the census block. Qualifying competitors must be able to port telephone numbers from consumers.
- (e) After a determination that a particular census block is served by a competitor as defined in paragraph (d) of this section, support provided pursuant to subpart K of this part shall be disaggregated pursuant to a method elected by the incumbent local exchange carrier. The sum of support that is disaggregated for competitive and non-competitive areas shall equal the total support available to the study area without disaggregation.
- (f) For any incumbent local exchange carrier for which the disaggregated support for competitive census blocks represents less than 25 percent of the support the carrier would have received in the study area in the absence of this rule, support provided pursuant to subpart K of this part shall be reduced according to the following schedule:
- (1) In the first year, 66 percent of the incumbent's disaggregated support for the competitive census block will be provided;
 - (2) In the second year, 33 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;
 - (3) In the third year and thereafter, no support shall be provided pursuant to subpart K of this part for any competitive census block.
- (g) For any incumbent local exchange carrier for which the disaggregated support for competitive census blocks represents more than 25 percent of the support the carrier would have received in the study area in the absence of this rule, support shall be reduced for each competitive census block according to the following schedule:
- (1) In the first year, 83 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;
 - (2) In the second year, 66 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;
 - (3) In the third year, 49 percent of the incumbent's disaggregated support for the competitive census blocks will be provided;
 - (4) In the fourth year, 32 percent of the incumbent's disaggregated support the competitive census block will be provided;

- (5) In the fifth year, 15 percent of the incumbent's disaggregated support the competitive census blocks will be provided;
 - (6) In the sixth year and thereafter, no support shall be paid provided pursuant to subpart K of this part for any competitive census block.
- (h) The Wireline Competition Bureau shall update its analysis of competitive overlap in census blocks every seven years, utilizing the current public interest obligations in §54.308(a)(2) as the standard that must be met by an unsubsidized competitor.
10. Revise §54.707 to read as follows:

§54.707 Audit controls.

- (a) The Administrator shall have the authority to audit contributors and carriers reporting data to the Administrator. The Administrator shall establish procedures to verify discounts, offsets and support amounts provided by the universal service support programs, and may suspend or delay discounts, offsets, and support amounts provided to a carrier if the carrier fails to provide adequate verification of discounts, offsets, or support amounts provided upon reasonable request, or if directed by the Commission to do so. The Administrator shall not provide reimbursements, offsets or support amounts pursuant to subparts D, K, L and M of this part to a carrier until the carrier has provided to the Administrator a true and correct copy of the decision of a state commission designating that carrier as an eligible telecommunications carrier in accordance with §54.202.
- (b) The Administrator has the right to obtain all cost and revenue submissions and related information, at any time and in unaltered format, that carriers submit to NECA that are used to calculate support payments pursuant to subparts D, K, and M of this part.
- (c) The Administrator (and NECA, to the extent the Administrator does not directly receive information from carriers) shall provide to the Commission upon request all underlying data collected from eligible telecommunications carriers to calculate payments pursuant to subparts D, K, L and M of this part.

11. Remove and reserve subpart J, consisting of §§ 54.800 through 54.809.

12. Revise §54.901 to read as follows:

§54.901 Calculation of Connect America Fund Broadband Loop Support.

- (a) Connect America Fund Broadband Loop Support (CAF BLS) available to a rate-of-return carrier shall equal the Interstate Common Line Revenue Requirement per Study Area, plus the Consumer Broadband-Only Revenue Requirement per Study Area as calculated in accordance with part 69 of this chapter, minus:
 - (1) The study area revenues obtained from end user common line charges at their allowable maximum as determined by paragraphs (n) and (o) of §69.104 of this chapter;
 - (2) Imputed Consumer Broadband-only Revenues, to be calculated as
 - (i) the lesser of $\$42 * \text{the number of consumer broadband-only loops} * 12$ or the Consumer Broadband-Only Revenue Requirement per Study Area, or
 - (ii) For the purpose of calculating the reconciliation pursuant to §54.903(b)(3), the greater of the amount determined pursuant to paragraph (a)(2)(i) of this section or the carrier's allowable Consumer Broadband-only rate calculated pursuant to §69.132 of this chapter * the number of consumer broadband-only loops * 12;
 - (3) The special access surcharge pursuant to §69.115 of this chapter; and

- (4) The line port costs in excess of basic analog service pursuant to §69.130 of this chapter.
- (b) For the purpose of calculating support pursuant to paragraph (a) of this section, the Interstate Common Line Revenue Requirement and Consumer Broadband-only Revenue Requirement shall be subject to the limits on operating expenses and capital investment allowances pursuant to §54.303.
- (c) For purposes of calculating the amount of CAF BLS, determined pursuant to paragraph (a) of this section, that a non-price cap carrier may receive, the corporate operations expense allocated to the Common Line Revenue Requirement or the Consumer Broadband-only Loop Revenue Requirement, pursuant to §69.409 of this chapter, shall be limited to the lesser of:
 - (1) The actual average monthly per-loop corporate operations expense; or
 - (2) The portion of the monthly per-loop amount computed pursuant to §54.1308(a)(4)(iii) that would be allocated to the Interstate Common Line Revenue Requirement or Consumer Broadband-only Loop Revenue Requirement pursuant to §69.409 of this chapter.
- (d) In calculating support pursuant to paragraph (a) of this section for periods prior to when the tariff charge described in §69.132 becomes effective, only Interstate Common Line Revenue Requirement and Interstate Common line revenues shall be included.
- (e) To the extent necessary for ratemaking purposes, each carrier's CAF BLS shall be attributed as follows:
 - (1) First, support shall be applied to ensure that the carrier has met its Interstate Common Line Revenue Requirement for the prior period to which true-up payments are currently being applied.
 - (2) Second, support shall be applied to ensure that the carrier has met its Consumer Broadband-only Loop Revenue Requirement for the prior period to which true-up payments are currently being applied.
 - (3) Third, support shall be applied to ensure that the carrier will meet, on a forecasted basis, its Interstate Common Line Revenue Requirement during the current tariff year.
 - (4) Finally, support shall be applied as available to the Consumer Broadband-only Loop Revenue Requirement during the current tariff year.
- (f) CAF BLS Support is subject to a reduction as necessary to meet the overall cap on support established by the Commission for support provided pursuant to this subpart and subpart M of this part. Reductions shall be implemented as follows:
 - (1) On May 1 of each year, the Administrator will publish a target amount for CAF BLS in the aggregate and the amount of CAF BLS that each study area will receive during the upcoming July 1 to June 30 tariff year. The target amount shall be the forecasted disbursement amount times a reduction factor. The reduction factor shall be the budget amount divided by the total forecasted disbursement amount for both High Cost Loop Support and CAF BLS for recipients in the aggregate. The forecasted disbursement for CAF BLS is the forecasted total disbursements for all recipients of CAF BLS, including both projections and true-ups in the upcoming July 1 to June 30 tariff year.
 - (2) The Administrator shall apply a per-line reduction to each carrier's CAF BLS equal to one-half the difference between the forecasted disbursement amount and the target amount divided by the total number of loops eligible for support. To the extent that per-line reduction is greater than the amount of CAF BLS per loop for a given carrier, that excess amount shall be subject to reduction through the method described in paragraph (f)(3) of this section.
 - (3) The Administrator shall apply an additional pro rata reduction to CAF BLS for each recipient of CAF BLS as necessary to achieve the target amount.
- (g) For purposes of this subpart and consistent with §69.132 of this chapter, a consumer broadband-only loop is a line provided by a rate-of-return incumbent local exchange carrier to a customer without

regulated local exchange voice service, for use in connection with fixed Broadband Internet access service, as defined in §8.2 of this chapter.

13. Revise §54.902 to read as follows:

§54.902 Calculation of CAF BLS Support for transferred exchanges.

(a) In the event that a rate-of-return carrier acquires exchanges from an entity that is also a rate-of-return carrier, CAF BLS for the transferred exchanges shall be distributed as follows:

(1) Each carrier may report its updated line counts to reflect the transfer in the next quarterly line count filing pursuant to §54.903(a)(1) that applies to the period in which the transfer occurred. During a transition period from the filing of the updated line counts until the end of the funding year, the Administrator shall adjust the CAF BLS Support received by each carrier based on the updated line counts and the per-line CAF BLS, categorized by customer class and, if applicable, disaggregation zone, of the selling carrier. If the acquiring carrier does not file a quarterly update of its line counts, it will not receive CAF BLS for those lines during the transition period.

(2) Each carrier's projected data for the following funding year filed pursuant to §54.903(a)(3) shall reflect the transfer of exchanges.

(3) Each carrier's actual data filed pursuant to §54.903(a)(4) shall reflect the transfer of exchanges. All post-transaction CAF BLS shall be subject to true up by the Administrator pursuant to §54.903(b)(3).

(b) In the event that a rate-of-return carrier acquires exchanges from a price-cap carrier, absent further action by the Commission, the exchanges shall receive the same amount of support and be subject to the same public interest obligations as specified in §54.310 or §54.312, as applicable.

(c) In the event that an entity other than a rate-of-return carrier acquires exchanges from a rate-of-return carrier, absent further action by the Commission, the carrier will receive model-based support and be subject to public interest obligations as specified in §54.310.

(d) This section does not alter any Commission rule governing the sale or transfer of exchanges, including the definition of "study area" in part 36 of this chapter.

14. Revise §54.903 to read as follows:

§54.903 Obligations of rate-of-return carriers and the Administrator.

(a) To be eligible for CAF BLS, each rate-of-return carrier shall make the following filings with the Administrator.

(1) Each rate-of-return carrier shall submit to the Administrator in accordance with the schedule in §54.1306 the number of lines it serves, within each rate-of-return carrier study area showing residential and single-line business line counts, multi-line business line counts, and consumer broadband-only line counts separately. For purposes of this report, and for purposes of computing support under this subpart, the residential and single-line business class lines reported include lines assessed the residential and single-line business End User Common Line charge pursuant to §69.104 of this chapter, the multi-line business class lines reported include lines assessed the multi-line business End User Common Line charge pursuant to §69.104 of this chapter, and consumer broadband-only lines reported include lines assessed the Consumer Broadband-only Loop rate charged pursuant to §69.132 of this chapter or provided on a detariffed basis. For purposes of this report, and for purposes of computing support under

this subpart, lines served using resale of the rate-of-return local exchange carrier's service pursuant to section 251(c)(4) of the Communications Act of 1934, as amended, shall be considered lines served by the rate-of-return carrier only and must be reported accordingly.

(2) A rate-of-return carrier may submit the information in paragraph (a) of this section in accordance with the schedule in §54.1306, even if it is not required to do so. If a rate-of-return carrier makes a filing under this paragraph, it shall separately indicate any lines that it has acquired from another carrier that it has not previously reported pursuant to paragraph (a) of this section, identified by customer class and the carrier from which the lines were acquired.

(3) Each rate-of-return carrier shall submit to the Administrator annually by March 31 projected data necessary to calculate the carrier's prospective CAF BLS, including common line and consumer broadband-only loop cost and revenue data, for each of its study areas in the upcoming funding year. The funding year shall be July 1 of the current year through June 30 of the next year. The data shall be accompanied by a certification that the cost data is compliant with the Commission's cost allocation rules and does not reflect duplicative assignment of costs to the consumer broadband-only loop and special access categories.

(4) Each rate-of-return carrier shall submit to the Administrator on December 31 of each year the data necessary to calculate a carrier's Connect America Fund CAF BLS, including common line and consumer broadband-only loop cost and revenue data, for the prior calendar year. Such data shall be used by the Administrator to make adjustments to monthly per-line CAF BLS amounts to the extent of any differences between the carrier's CAF BLS received based on projected common line cost and revenue data, and the CAF BLS for which the carrier is ultimately eligible based on its actual common line and consumer broadband-only loop cost and revenue data during the relevant period. The data shall be accompanied by a certification that the cost data is compliant with the Commission's cost allocation rules and does not reflect duplicative assignment of costs to the consumer broadband-only loop and special access categories.

(b) Upon receiving the information required to be filed in paragraph (a) of this section, the Administrator shall:

(1) Perform the calculations described in §54.901 and distribute support accordingly;

(2) Reserved

(3) Perform periodic reconciliation of the CAF BLS provided to each carrier based on projected data filed pursuant to paragraph (a)(3) of this section and the CAF BLS for which each carrier is eligible based on actual data filed pursuant to paragraph (a)(4) of this section; and

(4) Report quarterly to the Commission on the collection and distribution of funds under this subpart as described in §54.702(h). Fund distribution reporting will be by state and by eligible telecommunications carrier within the state.

15. Remove §54.904.

16. In §54.1308, revise paragraph (a) introductory text to read as follows:

§54.1308 Study Area Total Unseparated Loop Cost.

(a) For the purpose of calculating the expense adjustment, the study area total unseparated loop cost equals the sum of the following, however, subject to the limitations set forth in §54.303:

* * * * *

17. Add new paragraph (d) to §54.1310 to read as follows:

§54.1310 Expense adjustment.

* * * * *

(d) High Cost Loop Support is subject to a reduction as necessary to meet the overall cap on support established by the Commission for support provided pursuant to this subpart and subpart K of this chapter. Reductions shall be implemented as follows:

(1) On May 1 of each year, the Administrator will publish an annual target amount for High-Cost Loop Support in the aggregate. The target amount shall be the forecasted disbursement amount times a reduction factor. The reduction factor shall be the budget amount divided by the total forecasted disbursement amount for both High Cost Loop Support and Broadband Loop Support for recipients in the aggregate. The forecasted disbursement for High Cost Loop Support is the High Cost Loop Support cap determined pursuant to §54.1302 as reflected in the most recent annual filing pursuant to §54.1305.

(2) Each quarter, the Administrator shall adjust each carrier's High Cost Loop Support disbursements as follows:

(i) The Administrator shall apply a per-line reduction to each carrier's High Cost Loop Support equal to one-half the difference between the forecasted disbursement amount and the target amount divided by the total number of loops eligible for support. To the extent that per-line reduction is greater than the amount of High Cost Loop Support per loop for a given carrier, that excess amount will be subject to reduction through the method described in paragraph (d)(2)(ii) of this section.

(ii) The Administrator shall apply an additional pro rata reduction to High Cost Loop Support for each recipient of High Cost Loop Support as necessary to achieve the target amount.

18. Revise §54.302(b) and (c) to read as follows:

§54.302 Monthly per-line limit on universal service support.

(b) For purposes of this section, universal service support is defined as the sum of the amounts calculated pursuant to §§ 54.1304 and 54.1310, and §§ 54.305, and §§ 54.901 through 54.904. Line counts for purposes of this section shall be as of the most recent line counts reported pursuant to § 54.903(a)(1).

(c) The Administrator, in order to limit support to \$250 for affected carriers, shall reduce safety net additive support, high-cost loop support, safety valve support, and Connect America Fund Broadband Loop Support in proportion to the relative amounts of each support the study area would receive absent such limitation.

**PART 65—INTERSTATE RATE OF RETURN PRESCRIPTION PROCEDURES AND
METHODOLOGIES**

1. The authority citation for Part 65 is revised to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

2. Revise §65.302 to read as follows:

§ 65.302 Cost of debt.

The formula for determining the cost of debt is equal to:

$$\text{Embedded Cost of Debt} = \frac{\text{Total Annual Interest Expense}}{\text{Average Outstanding Debt}}$$

Where:

“Total Annual Interest Expense” is the total interest expense for the most recent year for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in §32.9000 of this chapter.

“Average Outstanding Debt” is the average of the total debt outstanding at the beginning and at the end of the most recent year for all local exchange carriers with annual revenues equal to or above the indexed revenue threshold as defined in §32.9000 of this chapter.

PART 69—ACCESS CHARGES

1. The authority citation for part 69 is revised to read as follows:

AUTHORITY: 47 U.S.C. 154, 201, 202, 203, 205, 218, 220, 254, 403.

2. Add new paragraph (k) to §69.4 to read as follows:

§69.4 Charges to be filed.

* * * * *

(k) A non-price cap incumbent local exchange carrier may include a charge for the Consumer Broadband-Only Loop.

3. Amend §69.104 by revising paragraphs (n)(1), (n)(1)(ii), and (o)(1), removing paragraphs (n)(1)(ii)(A) through (C), and adding paragraph (s) to read as follows:

§69.104 End user common line for non-price cap incumbent local exchange carriers.

* * * * *

(n)(1) Except as provided in paragraphs (r) and (s) of this section, the maximum monthly charge for each residential or single-line business local exchange service subscriber line shall be the lesser of:

(i) * * *

(ii) \$6.50

* * * * *

(o)(1) Except as provided in paragraphs (r) and (s) of this section, the maximum monthly End User Common Line Charge for multi-line business lines will be the lesser of:

* * * * *

(s) End User Common Line Charges for incumbent local exchange carriers not subject to price cap regulation that elect model-based support pursuant to §54.311 of this chapter are limited as follows:

(1) The maximum charge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess for each residential or single-line business local exchange service subscriber line is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

(2) The maximum charge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess for each multi-line business local exchange service subscriber line is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

4. Amend §69.115 by revising paragraph (b) and adding paragraph (f) to read as follows:

§69.115 Special access surcharges.

* * * * *

(b) Except as provided in paragraph (f) of this section, such surcharge shall be computed to reflect a reasonable approximation of the carrier usage charges which, assuming non-premium interconnection, would have been paid for average interstate or foreign usage of common lines, end office facilities, and transport facilities, attributable to each Special Access line termination which is not exempt from assessment pursuant to paragraph (e) of this section.

* * * * *

(f) The maximum special access surcharge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

5. Revise §69.130 to read as follows:

§69.130 Line port costs in excess of basic analog service.

(a) To the extent that the costs of ISDN line ports, and line ports associated with other services, exceed the costs of a line port used for basic, analog service, non-price cap local exchange carriers may recover the difference through a separate monthly end-user charge, provided that no portion of such excess cost may be recovered through other common line access charges, or through Connect America Fund Broadband Loop Support.

(b) The maximum charge a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter may assess is the rate in effect on the last day of the month preceding the month for which model-based support is first provided.

6. Add §69.132 to subpart B to read as follows:

§69.132 End user Consumer Broadband-Only Loop charge for non-price cap incumbent local exchange carriers.

(a) This section is applicable only to incumbent local exchange carriers that are not subject to price cap regulation as that term is defined in §61.3(ee) of this chapter.

(b) A charge that is expressed in dollars and cents per line per month may be assessed upon end users that subscribe to Consumer Broadband-Only Loop service. Such charge shall be assessed for each line without regulated local exchange voice service provided by a rate-of-return incumbent local exchange carrier to a customer, for use in connection with fixed Broadband Internet access service, as defined in §8.2 of this chapter.

(c) For carriers not electing model-based support pursuant to §54.311 of this chapter, the single-line rate or charge shall be computed by dividing one-twelfth of the projected annual revenue requirement for the Consumer Broadband-Only Loop category (net of the projected annual Connect America Fund Broadband Loop Support attributable to consumer broadband-only loops) by the projected average number of consumer broadband-only service lines in use during such annual period.

(d) The maximum monthly per line charge for each Consumer Broadband-Only Loop provided by a non-price cap local exchange carrier that elects model-based support pursuant to §54.311 of this chapter shall be \$42.

7. Amend §69.306 by removing and reserving paragraph (d)(2) as follows:

§69.306 Central office equipment (COE).

* * * * *

(d) * * *

(2) [Reserved.]

* * * * *

8. Add §69.311 to subpart D to read as follows:

§69.311 Consumer Broadband-Only Loop investment.

(a) Each non-price cap local exchange carrier shall remove consumer broadband-only loop investment assigned to the special access category by §§69.301 through 69.310 from the special access category and assign it to the Consumer Broadband-Only Loop category when the tariff charge described in §69.132 of this Part becomes effective.

(b) The consumer broadband-only loop investment to be removed from the special access category shall be determined using the following estimation method.

- (1) To determine the investment in Common Line facilities as if 100 percent were allocated to the interstate jurisdiction, a carrier shall use 100 percent as the interstate allocator in determining investment and the allocation of investment to the common line category under part 36 of this chapter and this part.

- (2) The result of paragraph (b)(1) of this section shall be divided by the number of voice and voice/data lines in the study area to produce an average investment per line.
 - (3) The average investment per line determined by paragraph (b)(2) of this section shall be multiplied by the number of Consumer Broadband-only Loops in the study area to derive the investment to be shifted from the Special Access category to the Consumer Broadband-only Loop category.
9. Amend §69.415 by removing and reserving paragraphs (a) through (c).
10. Add §69.416 to subpart E to read as follows:

§ 69.416 Consumer Broadband-Only Loop expenses.

(a) Each non-price cap local exchange carrier shall remove consumer broadband-only loop expenses assigned to the Special Access category by §§69.401 through 69.415 from the special access category and assign them to the Consumer Broadband-Only Loop category when the tariff charge described in §69.132 of this Part becomes effective.

(b) The consumer broadband-only loop expenses to be removed from the special access category shall be determined using the following estimation method.

- (1) The expenses assigned to the Common Line category as if the common line expenses were 100 percent interstate shall be determined using the methodology employed in §69.311(b)(1).
- (2) The result of paragraph (b)(1) of this section shall be divided by the number of voice and voice/data lines in the study area to produce an average expense per line.
- (3) The average expense per line determined by paragraph (b)(2) of this section shall be multiplied by the number of Consumer Broadband-only Loops in the study area to derive the expenses to be shifted from the Special Access category to the Consumer Broadband-only Loop category.

11. Amend §69.603 by revising paragraphs (g) and (h)(4) through (h)(6) to read as follows:

§69.603 Association functions.

* * * * *

(g) The association shall divide the expenses of its operations into two categories. The first category ("Category I Expenses") shall consist of those expenses that are associated with the preparation, defense, and modification of association tariffs, those expenses that are associated with the administration of pooled receipts and distributions of exchange carrier revenues resulting from association tariffs, those expenses that are associated with association functions pursuant to paragraphs 69.603 (c) through (g) of this section, and those expenses that pertain to Commission proceedings involving this subpart. The second category ("Category II Expenses") shall consist of all other association expenses. Category I Expenses shall be sub-divided into three components in proportion to the revenues associated with each component. The first component ("Category I.A Expenses") shall be in proportion to High Cost Loop Support revenues. The second component ("Category I.B Expenses") shall be in proportion to the sum of the association End User Common Line revenues and the association Special Access Surcharge revenues. Interstate Common Line Support Revenues and Connect America Fund Broadband Loop Support revenues shall be included in the allocation base for Category I.B expenses. The third component ("Category I.C Expenses") shall be in proportion to the revenues from all other association interstate access charges.

(h)(1) * * *

(4) No distribution to an exchange carrier of High Cost Loop Support revenues shall include adjustments for association expenses other than Category I.A. Expenses.

(5) No distribution to an exchange carrier of revenues from association End User Common Line charges shall include adjustments for association expenses other than Category I.B Expenses. Interstate Common Line Support and Connect America Fund Broadband Loop Support shall be subject to this provision.

(6) No distribution to an exchange carrier of revenues from association interstate access charges other than End User Common Line charges and Special Access Surcharges shall include adjustments for association expenses other than Category I.C Expenses.

* * * * *

APPENDIX C

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities from the policies and rules proposed in this Further Notice of Proposed Rulemaking (Further Notice). The Commission requests written public comment on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Further Notice provided on Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed. The Commission will send a copy of the Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the Further Notice and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. In the Further Notice, we commence a review of the extent to which certain investments and expenses incurred by a rate-of-return regulated local exchange carrier may be included in its rate base and revenue requirement for ratemaking and USF purposes.⁴ The Commission has not comprehensively reviewed the continued reasonableness of its existing rules regarding permissible investments and expenses for regulated local exchange carriers since the passage of the Telecommunications Act of 1996. Market and regulatory conditions have changed substantially since that time. Regulated telecommunications carriers have expanded into the provision of retail broadband services, either directly or through affiliated entities. Regulated carriers also increasingly face competition, for both voice and broadband services, in portions of their incumbent territory from other facilities-based providers, such as cable and wireless providers. These changing conditions may affect the incentives regarding the types of costs carriers attempt to include in their revenue requirement and the ways in which carriers allocate costs between regulated and non-regulated services and affiliates.

3. Through audits, inquiries, and other investigations, the Commission has recently become aware of alleged abuses by rate-of-return carriers of the used and useful principles and its cost allocation rules. The Commission therefore concluded that it is time to reevaluate the types of expenses that should be permitted—both in a carrier's revenue requirement and for recovery through high-cost support. Looking into the expenses permitted and the allocation of those expenses will help ensure that carriers are only recovering costs that are used and useful and prudently incurred, and in the case of high cost support, only costs that are necessary to the provision of interstate telecommunications services.

4. In the Order, the Commission determined that universal service support should be targeted more specifically to those areas where support is most needed to ensure consumers are served with voice and broadband service. Therefore, the Commission adopted a process for identifying those areas served by an unsubsidized competitor and several methods of disaggregating support to those areas. However, the Commission seeks comment on other methods for disaggregating support that would be minimally burdensome on carriers and how the non-supported amount should be recovered.

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C. § 603(a).

³ *Id.*

⁴ We note that there may be very limited circumstances where our proposed reforms would impact price cap regulated carriers' use of high-cost USF support.

5. The Commission recognizes that Tribal lands may need additional financial support to ensure the availability of broadband in these areas. Therefore, the Further Notice seeks comment on whether a separate mechanism is needed to support broadband in Tribal lands and, if so, how such a mechanism should be structured.

6. Some companies have informed the Commission that they are unable to extend broadband due to a lack of access to capital. Other carriers have seen declining support or are ineligible for certain types of support, such as HCLS. In the Order, the Commission has adopted reforms to its high-cost universal service support to support broadband deployment. The Further Notice seeks comment on other proposals to expand broadband services in those areas served by rate-of-return carriers and any changes needed to make the administration of federal universal service programs more efficient.

7. The Commission also seeks to modify its ETC annual reporting obligations to improve the Commission's ability to protect against waste, fraud, and abuse. The Further Notice seeks comment on how best to make the information collected more useful while minimizing the burdens on those carriers subject to these reporting requirements.

1. Review of Permitted Expenses

8. The Further Notice begins by reevaluating a rate-of-return carrier's ability to include certain types of expenses in its revenue requirement and high-cost support with consideration of the appropriate standard to be applied. The Commission believes that the terms "used and useful," "prudent expenditure," and "necessary to the provision of" should be read consistently to describe those expenses that a carrier may appropriately include in its interstate rate base, interstate revenue requirement, and cost studies used to calculate high-cost support. The costs should include amounts of long-term investment and current expenditures that a business would reasonably incur to provide telecommunications services, taking into account current and reasonably forecasted operating conditions and business levels. Accordingly, the Commission seeks comment on a variety of expenses, and whether such expenses should be included when making these calculations.⁵

2. Issues Related to Cost Allocation and Affiliate Transactions

9. Rate-of-return carriers are subject to the Commission's longstanding Part 64 rules regarding the allocation of costs between regulated and non-regulated activities and to the affiliate transaction rules in Part 32.⁶ Under these rules, carriers currently apply broad principles in making such allocations, and the lack of specificity in the rules gives carriers a degree of discretion in making these allocation decisions.⁷ Carriers have an incentive to interpret the allocation rules in order to allocate as many costs as possible to their regulated activities, both to justify a higher interstate revenue requirement and to receive additional high-cost support. Given the lack of specific guidance, the additional costs associated with the provision of retail broadband services, and the incentive to allocate costs to regulated activities, the Commission concludes that it is time to revisit the allocation rules to provide greater clarity to rate-of-return carriers regarding how to determine the relative allocation of costs between regulated and non-regulated activities and affiliates.⁸ The Commission seeks comment on adopting new rules to improve the process of allocating costs among regulated and non-regulated services and among affiliates, and also seeks comment regarding how to detect cases of misallocation.

⁵ See *supra* Section IV.A.

⁶ See generally 47 CFR § 64.901 (regarding cost allocation); 47 CFR § 32.27 (regarding the affiliate transaction rules).

⁷ See 47 CFR § 64.901 *et seq.*; 47 CFR § 32.27.

⁸ See *supra* Section IV.A.

3. Compliance Issues

10. Additionally, the Commission seeks comment on the most effective way to ensure compliance with the proposed rules for universal service support and tariffing purposes. For example, the Commission seeks comment on what, if any, certification or reporting requirements should be implemented.⁹

4. Reducing Support in Competitive Areas

11. In the Further Notice, we seek comment on alternative methods of reducing support for areas served by an unsubsidized competitor.¹⁰ In the Order, we adopt several methods of disaggregating CAF BLS for areas found to be competitively served and allow carriers to select which method will be used. However, we invite commenters to propose other methods of disaggregation of support that can be implemented with minimal administrative burden for affected carriers and USAC.¹¹ We seek to avoid complex allocations of the cost of facilities that serve both competitive and non-competitive areas, which could be burdensome for rate-of-return carriers to implement.

12. We also invite parties to comment on how the non-supported amount is to be recovered by the carrier, assuming such expenses remain regulated expenses for ratemaking purposes.¹² We note that rate-of-return carriers currently receive compensation for interstate loop costs through a combination of end-user charges, e.g., SLCs, and universal service support. The SLCs most rate-of-return carriers assess are at the maximum levels. Thus, in many situations, carriers would be prohibited by our current rules from increasing SLC rates to recover investment and associated expenses that will not be supported under the high-cost program in competitive areas. Therefore, we invite parties to comment on two approaches for recovery of those amounts.¹³

5. Tribal Support

13. In the Further Notice, we seek comment on a proposal to adopt a mechanism to provide additional support to unserved Tribal lands, and alternative approaches.¹⁴ The Commission has observed that communities on Tribal lands have historically had less access to telecommunications services than any other segment of the population,¹⁵ and that greater financial support therefore may be needed in order to ensure the availability of broadband on Tribal lands.¹⁶ Therefore, we seek comment on adopting rules to increase support to rate-of-return carriers for census blocks that include Tribal lands and are unserved with broadband meeting the Commission's current requirements.¹⁷ The Commission also recognizes that broadband deployment differs substantially among Tribal lands.¹⁸ To assist small rate-of-return carriers that serve Tribal areas with minimal infrastructure build out, we also seek comment on how best to target Tribal land-specific support to Tribal areas most in need of broadband deployment.¹⁹

⁹ See *supra* Section IV.A.

¹⁰ See *supra* Section IV.B.

¹¹ See *id.*

¹² See *id.*

¹³ See *id.*

¹⁴ See *supra* Section IV.C.

¹⁵ See *USF/ICC Transformation Order*, 26 FCC Rcd at 17818-19, para. 479

¹⁶ See *id.*

¹⁷ See *supra* Section IV.C.

¹⁸ Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/encyclopedia/broadband-deployment-data-fcc-form-477> (last visited Nov. 16, 2015).

¹⁹ See *supra* Section IV.C.

6. Other Measures To Improve the Operation of the Current Rate-of-Return System

14. Additionally, in the Further Notice, we invite commenters to submit into the record any other proposals or ideas for steps the Commission should take to provide appropriate incentives for broadband deployment to unserved areas working within the framework of the existing budget for rate-of-return areas.²⁰ Some companies have indicated they have been unable to extend broadband despite their sincere desire to do so due to lack of access to capital, while other companies have seen declining support under the existing legacy mechanisms. Some carriers are not eligible for HCLS support due to the prior “race to the top” that the Commission took steps to address in December 2014.²¹ We expect our reforms to the existing ICLS mechanism and addition of a voluntary path to the model will provide options for carriers to extend broadband where it is lacking. While we intend to monitor the impact of these reforms over time, we invite commenters to submit into the record any other proposals or ideas for steps the Commission should take to provide appropriate incentives for broadband deployment to unserved areas while minimizing disruption for those carriers that prefer to remain under the reformed legacy mechanisms.²²

7. Streamlining ETC Annual Reporting Requirements

15. Lastly, with respect to ETC reporting requirements, we seek comment on additional ways to lessen regulatory reporting burdens on ETCs, particularly those that are small businesses.²³ In the Order, we update our annual reporting requirements for rate-of-return ETCs as a necessary component of our ongoing efforts to update the support mechanisms for such ETCs to reflect our dual objectives of supporting existing voice and broadband service, while extending broadband to those areas of the country where it is lacking.²⁴ To further lessen the regulatory burden on ETCs, many of whom are small rate-of-return carriers, and to improve on the Commission’s ability to protect against waste, fraud, and abuse, we seek comment on certain, narrowly-tailored reporting changes.²⁵ Specifically, we seek comment on whether to modify or eliminate five sets of requirements: the requirements to provide outage information, unfulfilled service requests, the number of complaints per 1,000 subscribers for both voice and broadband service, pricing for both voice and broadband, and certification of compliance with applicable service quality standards.²⁶

B. Legal Basis

16. The legal basis for any action that may be taken pursuant to the Notice is contained in sections 1, 2, 4(i), 5, 10, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 405 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151, 152, 154(i), 155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, 405, 1302, and sections 1.1, 1.3, 1.421, 1.427, and 1.429 of the Commission’s rules, 47 C.F.R. §§ 1.1, 1.3, 1.421, 1.427, and 1.429.

²⁰ See *supra* Section IV.D.

²¹ See *id.*

²² See *id.*

²³ See *supra* Section IV.E.

²⁴ See *supra* Section II.E.

²⁵ See *supra* Section IV.E.

²⁶ See *id.*

C. Description and Estimate of the Number of Small Entities to Which the Rules Would Apply

17. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.²⁷ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”²⁸ In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.²⁹ A small-business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).³⁰

1. Total Small Entities

18. Our proposed action, if implemented, may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.³¹ First, nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA, which represents 99.7% of all businesses in the United States.³² In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”³³ Nationwide, as of 2007, there were approximately 1,621,215 small organizations.³⁴ Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”³⁵ Census Bureau data for 2011 indicate that there were 90,056 local governmental jurisdictions in the United States.³⁶ We estimate that, of this total, as many as 89,327 entities may qualify as “small governmental jurisdictions.”³⁷ Thus, we estimate that most governmental jurisdictions are small.

²⁷ See 5 U.S.C. § 603(b)(3).

²⁸ See 5 U.S.C. § 601(6).

²⁹ See 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

³⁰ See 15 U.S.C. § 632.

³¹ See 5 U.S.C. §§ 601(3)-(6).

³² See SBA, Office of Advocacy, *Frequently Asked Questions*, http://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf.

³³ 5 U.S.C. § 601(4).

³⁴ Indep. Sector, *The New Nonprofit Almanac and Desk Reference* (2010).

³⁵ 5 U.S.C. § 601(5).

³⁶ See SBA, Office of Advocacy - *Frequently Asked Questions*, https://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf (last visited Mar. 4, 2016). U.S. Census Bureau, *Statistical Abstract of the United States: 2012*, Section 8, page 267, tbl. 429, <https://www.census.gov/compendia/statab/2012/tables/12s0429.pdf> (data cited therein are from 2007).

³⁷ The 2011 Census data for small governmental organizations are not presented based on the size of the population in each organization. As stated above, there were 90,056 local governmental organizations in 2011. As a basis for estimating how many of these 90,056 local organizations were small, in 2011 we note that there were a total of 729 cities and towns (incorporated places and minor civil divisions) with populations over 50,000. See U.S. Census Bureau, *American Fact Finder*, <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> (last visited Mar. 4,

(continued....)

2. Broadband Internet Access Service Providers

19. The rules adopted in the Order apply to broadband Internet access service providers. The Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider's own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,³⁸ which has an SBA small business size standard of 1,500 or fewer employees.³⁹ These are also labeled "broadband." The latter are within the category of All Other Telecommunications,⁴⁰ which has a size standard of annual receipts of \$32.5 million or less.⁴¹ These are labeled non-broadband. According to Census Bureau data for 2007, there were 3,188 firms in the first category, total, that operated for the entire year.⁴² Of this total, 3144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1,000 employees or more.⁴³ For the second category, the data show that 2,383 firms operated for the entire year.⁴⁴ Of those, 2,346 had annual receipts below \$32.5 million per year. Consequently, we estimate that the majority of broadband Internet access service provider firms are small entities.

20. The broadband Internet access service provider industry has changed since this definition was introduced in 2007. The data cited above may therefore include entities that no longer provide broadband Internet access service, and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing broadband Internet access service. We note that, although we have no specific information on the number of small entities that provide broadband Internet access service over unlicensed spectrum, we include these entities in our Final Regulatory Flexibility Analysis.

(Continued from previous page)

2016). If we subtract the 729 cities and towns that exceed the 50,000 population threshold, we conclude that approximately 89,327 are small.

2007 U.S. Census data for small governmental organizations are not presented based on the size of the population in each such organization. There were 89,476 local governmental organizations in 2007. If we assume that county, municipal, township, and school district organizations are more likely than larger governmental organizations to have populations of 50,000 or less, the total of these organizations is 52,095. As a basis of estimating how many of these 89,476 local government organizations were small, in 2011, we note that there were a total of 715 cities and towns (incorporated places and minor civil divisions) with populations over 50,000. City and Town Totals Vintage: 2011 – U.S. Census Bureau, <http://www.census.gov/popest/data/cities/totals/2011/index.html>. If we subtract the 715 cities and towns that meet or exceed the 50,000 population threshold, we conclude that approximately 88,761 are small. U.S. Census Bureau, Statistical Abstract of the United States: 2012, Section 8, page 267, tbl. 429, <https://www.census.gov/compendia/statab/2012/tables/12s0429.pdf> (data cited therein are from 2007).

³⁸ U.S. Census Bureau, 2012 NAICS Definitions, "517110 Wired Telecommunications Carriers," <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012%20NAICS%20Search>.

³⁹ 13 CFR. § 121.201, NAICS code 517110.

⁴⁰ U.S. Census Bureau, 2012 NAICS Definitions, "517919 All Other Telecommunications," <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012%20NAICS%20Search>.

⁴¹ 13 CFR § 121.201, NAICS code 517919.

⁴² U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, "Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110" (issued Nov. 2010).

⁴³ See *id.*

⁴⁴ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, "Establishment and Firm Size," NAICS code 5179191 (rel. Nov. 19, 2010) (receipts size).

3. Wireline Providers

21. *Incumbent Local Exchange Carriers (Incumbent LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LEC services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁵ According to Commission data,⁴⁶ 1,307 carriers reported that they were incumbent LEC providers.⁴⁷ Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁴⁸ Consequently, the Commission estimates that most providers of incumbent LEC service are small businesses that may be affected by rules adopted pursuant to the Order.

22. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁹ According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.⁵⁰ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.⁵¹ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.⁵² In addition, 72 carriers have reported that they are Other Local Service Providers.⁵³ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.⁵⁴ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities that may be affected by rules adopted pursuant to the Order.

23. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”⁵⁵ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.⁵⁶ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize

⁴⁵ 13 CFR § 121.201, NAICS code 517110.

⁴⁶ Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁴⁷ See *Trends in Telephone Service* at tbl. 5.3.

⁴⁸ See *id.*

⁴⁹ 13 CFR § 121.201, NAICS code 517110.

⁵⁰ See *Trends in Telephone Service* at tbl.5.3.

⁵¹ See *id.*

⁵² See *id.*

⁵³ See *id.*

⁵⁴ See *id.*

⁵⁵ 5 U.S.C. § 601(3).

⁵⁶ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 (continued....)

that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

24. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁷ According to Commission data,⁵⁸ 359 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXC's are small entities that may be affected by rules adopted pursuant to the Order.

25. *Operator Service Providers (OSPs).* Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁹ According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁰ Consequently, the Commission estimates that the majority of OSP's are small entities that may be affected by rules adopted pursuant to the Order.

26. *Prepaid Calling Card Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶¹ According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.⁶² Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.⁶³ Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the Order.

27. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁴ According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁶⁵ Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁶ Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Order.

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U.S.C. § 601(3). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

⁵⁷ 13 CFR § 121.201, NAICS code 517110.

⁵⁸ *Trends in Telephone Service*, tbl. 5.3.

⁵⁹ 13 CFR § 121.201, NAICS code 517110.

⁶⁰ *Trends in Telephone Service*, tbl. 5.3.

⁶¹ See 13 CFR § 121.201, NAICS code 517911.

⁶² See *Trends in Telephone Service* at Table 5.3.

⁶³ See *id.*

⁶⁴ See 13 CFR § 121.201, NAICS code 517911.

⁶⁵ See *Trends in Telephone Service* at Table 5.3.

⁶⁶ See *id.*

28. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁷ According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁶⁸ Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.⁶⁹ Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the Order.

29. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁰ According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.⁷¹ Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.⁷² Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the Order.

30. *800 and 800-Like Service Subscribers.*⁷³ Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁴ The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.⁷⁵ According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.⁷⁶ We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers; 5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

4. Wireless Providers – Fixed and Mobile

31. The broadband Internet access service provider category covered by this Order may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition,

⁶⁷ See 13 CFR § 121.201, NAICS code 517911.

⁶⁸ See *Trends in Telephone Service* at Table 5.3.

⁶⁹ See *id.*

⁷⁰ See 13 CFR § 121.201, NAICS code 517110.

⁷¹ See *Trends in Telephone Service* at Table 5.3.

⁷² See *id.*

⁷³ We include all toll-free number subscribers in this category, including those for 888 numbers.

⁷⁴ See 13 CFR § 121.201, NAICS code 517911.

⁷⁵ See *Trends in Telephone Service* at Tables 18.7-18.10.

⁷⁶ See *id.*

for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

32. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁷⁷ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁷⁸ For the category of Wireless Telecommunications Carriers (except Satellite), census data for 2007 show that there were 1,383 firms that operated for the entire year.⁷⁹ Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1,000 employees or more.⁸⁰ Since all firms with fewer than 1,500 employees are considered small, given the total employment in the sector, we estimate that the vast majority of wireless firms are small.

33. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁸¹ The SBA has approved these definitions.⁸²

34. *218-219 MHz Service*. The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.⁸³ In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed \$15 million for the preceding three years.⁸⁴ A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an

⁷⁷ U.S. Census Bureau, 2012 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite)”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2012%20NAICS%20Search>.

⁷⁸ 13 CFR § 121.201, NAICS code 517210 (2012 NAICS). The now-superseded, pre-2007 CFR citations were 13 CFR § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁷⁹ U.S. Census Bureau, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210” (issued Nov. 2010).

⁸⁰ See *id.*

⁸¹ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

⁸² See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

⁸³ See generally *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

⁸⁴ See generally *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999) (*218-219 MHz Report and Order and Memorandum Opinion and Order*).

entity and its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years.⁸⁵ These size standards will be used in future auctions of 218-219 MHz spectrum.

35. *2.3 GHz Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (“WCS”) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁸⁶ The SBA has approved these definitions.⁸⁷ The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

36. *1670–1675 MHz Services.* This service can be used for fixed and mobile uses, except aeronautical mobile.⁸⁸ An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

37. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁸⁹ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁹⁰ According to Commission data, 413 carriers reported that they were engaged in wireless telephony.⁹¹ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.⁹² Therefore, a little less than one third of these entities can be considered small.

38. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.⁹³ For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁹⁴ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.⁹⁵ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block

⁸⁵ See *id.*

⁸⁶ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879 para. 194 (1997).

⁸⁷ See *Alvarez Letter 1998*.

⁸⁸ 47 CFR § 2.106; see generally 47 CFR §§ 27.1-27.70.

⁸⁹ 13 CFR § 121.201, NAICS code 517210.

⁹⁰ *Id.*

⁹¹ *Trends in Telephone Service*, tbl. 5.3.

⁹² *Id.*

⁹³ See *Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission’s Cellular/PCS Cross-Ownership Rule*; WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824, 7850-52, paras. 57-60 (1996) (*PCS Report and Order*); see also 47 CFR § 24.720(b).

⁹⁴ See *PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

⁹⁵ See *Alvarez Letter 1998*.

auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.⁹⁶ On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.⁹⁷ Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

39. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.⁹⁸ Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.⁹⁹ On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.¹⁰⁰ Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.¹⁰¹ On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.¹⁰² Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.¹⁰³

40. *Specialized Mobile Radio Licenses.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.¹⁰⁴ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.¹⁰⁵ The SBA has approved these small business size standards for the 900 MHz Service.¹⁰⁶ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million

⁹⁶ See *Broadband PCS, D, E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

⁹⁷ See *C, D, E, and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

⁹⁸ See *C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

⁹⁹ See *Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

¹⁰⁰ See *Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

¹⁰¹ *Id.*

¹⁰² See *Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

¹⁰³ *Id.*

¹⁰⁴ 47 CFR § 90.814(b)(1).

¹⁰⁵ *Id.*

¹⁰⁶ See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (filed Aug. 10, 1999) (*Alvarez Letter 1999*).

size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹⁰⁷ A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹⁰⁸

41. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the \$15 million size standard.¹⁰⁹ In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹¹⁰ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

42. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.¹¹¹ We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

43. *Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.¹¹² The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹¹³ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹¹⁴ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.¹¹⁵ The SBA approved these small size standards.¹¹⁶ An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning

¹⁰⁷ See *Correction to Public Notice DA 96-586 “FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,”* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

¹⁰⁸ See *Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

¹⁰⁹ See *800 MHz Specialized Mobile Radio (SMR) Service General Category (851–854 MHz) and Upper Band (861–865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

¹¹⁰ See *800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

¹¹¹ See generally 13 CFR § 121.201, NAICS code 517210.

¹¹² See *Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

¹¹³ See *id.* at 1087-88, para. 172.

¹¹⁴ See *id.*

¹¹⁵ See *id.*, at 1088, para. 173.

¹¹⁶ See *Alvarez Letter 1999*.

bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.¹¹⁷ A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.¹¹⁸ Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.¹¹⁹ On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

44. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.¹²⁰ An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.¹²¹ Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) won 325 licenses.

45. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.¹²² On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.¹²³ The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

46. *700 MHz Guard Band Licensees*. In 2000, in the 700 MHz Guard Band Order, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹²⁴ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹²⁵ Additionally, a very

¹¹⁷ See *Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

¹¹⁸ See *id.*

¹¹⁹ See *id.*

¹²⁰ *Service Rules for the 698–746, 747–762 and 777–792 MHz Band; Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review—Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission’s Part 1 Anti-Collusion Rule*, WT Docket Nos. 07-166, 06-169, 06-150, 03-264, 96-86, PS Docket No. 06-229, CC Docket No. 94-102, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007) (*700 MHz Second Report and Order*).

¹²¹ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

¹²² *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

¹²³ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

¹²⁴ See *Service Rules for the 746–764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*746–764 MHz Band Second Report and Order*).

¹²⁵ See *id.* at 5343, para. 108.

small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹²⁶ SBA approval of these definitions is not required.¹²⁷ An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000.¹²⁸ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹²⁹

47. *Cellular Radiotelephone Service.* Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.¹³⁰ Bidding credits for designated entities were not available in Auction 77.¹³¹ In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling \$25,002.¹³²

48. *Private Land Mobile Radio (“PLMR”).* PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee’s primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.¹³³ The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.¹³⁴

49. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

¹²⁶ See *id.*

¹²⁷ See *id.* at 5343, para. 108 n.246 (for the 746–764 MHz and 776–794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

¹²⁸ See *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

¹²⁹ See *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

¹³⁰ See *Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77*, Public Notice, 23 FCC Rcd 6670 (Wireless Tel. Bur. 2008).

¹³¹ *Id.* at 6685.

¹³² See *Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008*, Public Notice, 23 FCC Rcd 9501 (WTB 2008).

¹³³ See 13 CFR § 121.201, NAICS code 517210.

¹³⁴ See generally 13 CFR § 121.201.

50. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.¹³⁵ A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).¹³⁶ In the present context, we will use the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.¹³⁷ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

51. *Air-Ground Radiotelephone Service.* The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.¹³⁸ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million.¹³⁹ A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.¹⁴⁰ These definitions were approved by the SBA.¹⁴¹ In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

52. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁴² Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁴³ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than

¹³⁵ The service is defined in 47 CFR § 22.99.

¹³⁶ BETRS is defined in 47 CFR §§ 22.757 and 22.759.

¹³⁷ 13 CFR § 121.201, NAICS code 517210.

¹³⁸ 13 CFR § 121.201, NAICS codes 517210.

¹³⁹ *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services, Biennial Regulatory Review—Amendment of Parts 1, 22, and 90 of the Commission's Rules, Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, WT Docket Nos. 03-103, 05-42, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).

¹⁴⁰ *Id.*

¹⁴¹ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission (filed Sept. 19, 2005).

¹⁴² See 13 CFR § 121.201, NAICS code 517210.

¹⁴³ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

100 employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars.¹⁴⁴ In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.¹⁴⁵ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards and may be affected by rules adopted pursuant to the Order.

53. *Advanced Wireless Services (AWS) (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)).* For the AWS-1 bands,¹⁴⁶ the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.¹⁴⁷

54. *3650–3700 MHz band.* In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

55. *Fixed Microwave Services.* Microwave services include common carrier,¹⁴⁸ private-operational fixed,¹⁴⁹ and broadcast auxiliary radio services.¹⁵⁰ They also include the Local Multipoint

¹⁴⁴ See generally *Amendment of the Commission’s Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

¹⁴⁵ See *id.*

¹⁴⁶ The service is defined in section 90.1301 *et seq.* of the Commission’s Rules, 47 CFR § 90.1301 *et seq.*

¹⁴⁷ See *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Report and Order, 18 FCC Rcd 25162, Appx. B (2003), modified by *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Order on Reconsideration, 20 FCC Rcd 14058, Appx. C (2005); *Service Rules for Advanced Wireless Services in the 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz Bands*; *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket Nos. 04-356, 02-353, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, Appx. B (2005); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, WT Docket No. 07-195, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, Appx. (2007).

¹⁴⁸ See 47 CFR Part 101, Subparts C and I.

Distribution Service (LMDS),¹⁵¹ the Digital Electronic Message Service (DEMS),¹⁵² and the 24 GHz Service,¹⁵³ where licensees can choose between common carrier and non-common carrier status.¹⁵⁴ At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. For purposes of the FRFA, we will use the SBA's definition applicable to Wireless Telecommunications Carriers (except satellite)—i.e., an entity with no more than 1,500 persons.¹⁵⁵ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.¹⁵⁶ The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

56. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.¹⁵⁷ There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite). Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁵⁸ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁵⁹ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus, under this category and the associated small business size standard, the majority of firms can be considered small.

57. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous

(Continued from previous page)

¹⁴⁹ See 47 CFR Part 101, Subparts C and H.

¹⁵⁰ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. See 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

¹⁵¹ See 47 CFR Part 101, Subpart L.

¹⁵² See 47 CFR Part 101, Subpart G.

¹⁵³ See *id.*

¹⁵⁴ See 47 CFR §§ 101.533, 101.1017.

¹⁵⁵ 13 CFR § 121.201, NAICS code 517210.

¹⁵⁶ 13 CFR § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 CFR citations were 13 CFR § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

¹⁵⁷ This service is governed by Subpart I of Part 22 of the Commission's Rules. See 47 CFR §§ 22.1001-22.1037.

¹⁵⁸ *Id.*

¹⁵⁹ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

calendar years.¹⁶⁰ An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁶¹ The SBA has approved these small business size standards.¹⁶² The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the Order.

58. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).¹⁶³ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹⁶⁴ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹⁶⁵ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules.

59. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.¹⁶⁶ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.¹⁶⁷ Auction 86 concluded in 2009 with

¹⁶⁰ See *Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661–64, paras. 149–151 (1997).

¹⁶¹ See *id.*

¹⁶² See Letter to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

¹⁶³ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, MM Docket No. 94-131, PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

¹⁶⁴ 47 CFR § 21.961(b)(1).

¹⁶⁵ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard of 1500 or fewer employees.

¹⁶⁶ Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86, AU Docket No. 09-56, *Public Notice*, 24 FCC Rcd 8277 (2009).

¹⁶⁷ *Id.* at 8296 para. 73.

the sale of 61 licenses.¹⁶⁸ Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

60. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,436 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹⁶⁹ Thus, we estimate that at least 2,336 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."¹⁷⁰ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use the most current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.¹⁷¹ According to Census Bureau data for 2007, there were a total of 996 firms in this category that operated for the entire year.¹⁷² Of this total, 948 firms had annual receipts of under \$10 million, and 48 firms had receipts of \$10 million or more but less than \$25 million.¹⁷³ Thus, the majority of these firms can be considered small.

61. *Narrowband Personal Communications Services.* In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of \$40 million or less.¹⁷⁴ Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.¹⁷⁵ To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.¹⁷⁶ A "small

¹⁶⁸ Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period, *Public Notice*, 24 FCC Rcd 13572 (2009).

¹⁶⁹ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

¹⁷⁰ U.S. Census Bureau, 2012 NAICS Definitions, "517110 Wired Telecommunications Carriers," (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012>.

¹⁷¹ 13 CFR § 121.201, NAICS code 517110.

¹⁷² U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Receipts by Enterprise Employment Size for the United States: 2007, NAICS code 517510 (rel. Nov. 19, 2010).

¹⁷³ *Id.*

¹⁷⁴ *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, PP Docket No. 93-253, GEN Docket No. 90-314, ET Docket No. 92-100, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

¹⁷⁵ *See Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses, Winning Bids Total \$617,006,674*, Public Notice, PNWL 94-004 (rel. Aug. 2, 1994); *Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total \$490,901,787*, Public Notice, PNWL 94-27 (rel. Nov. 9, 1994).

¹⁷⁶ *Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, *Narrowband PCS, Second Report and Order and Second* (continued....)

business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million.¹⁷⁷ A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million.¹⁷⁸ The SBA has approved these small business size standards.¹⁷⁹ A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.¹⁸⁰ Three of these claimed status as a small or very small entity and won 311 licenses.

62. *Paging (Private and Common Carrier).* In the *Paging Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁸¹ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these small business size standards.¹⁸² According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.¹⁸³ Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.¹⁸⁴ Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses.¹⁸⁵ A subsequent auction of MEA and Economic Area (“EA”) licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.¹⁸⁶ One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.¹⁸⁷ A fourth auction, consisting of 9,603 lower and

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Further Notice of Proposed Rule Making, 15 FCC Rcd 10456, 10476, para. 40 (2000) (*Narrowband PCS Second Report and Order*).

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (*Alvarez Letter 1998*).

¹⁸⁰ See *Narrowband PCS Auction Closes*, Public Notice, 16 FCC Rcd 18663 (Wireless Tel. Bur. 2001).

¹⁸¹ See *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*).

¹⁸² See *Alvarez Letter 1998*.

¹⁸³ See *Trends in Telephone Service* at Table 5.3.

¹⁸⁴ See *id.*

¹⁸⁵ See *id.*

¹⁸⁶ See *Lower and Upper Paging Band Auction Closes*, Public Notice, 16 FCC Rcd 21821 (Wireless Tel. Bur. 2002).

¹⁸⁷ See *Lower and Upper Paging Bands Auction Closes*, Public Notice, 18 FCC Rcd 11154 (Wireless Tel. Bur. 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.¹⁸⁸

63. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.¹⁸⁹ The Commission estimates that nearly all such licensees are small businesses under the SBA’s small business size standard that may be affected by rules adopted pursuant to the Order.

64. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁹⁰ This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.¹⁹¹ A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.¹⁹² The SBA has approved these small business size standards.¹⁹³ Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.¹⁹⁴ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.¹⁹⁵

5. Satellite Service Providers

65. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. The first category has a small business size standard of \$30 million or less in average

¹⁸⁸ See *Auction of Lower and Upper Paging Bands Licenses Closes*, Public Notice, 25 FCC Rcd 18164 (Wireless Tel. Bur. 2010).

¹⁸⁹ See 13 CFR § 121.201, NAICS code 517210.

¹⁹⁰ See *Amendment of Part 90 of the Commission’s Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

¹⁹¹ See *id.* at 11068–69, para. 291.

¹⁹² See *id.* at 11068–70, paras. 291–95.

¹⁹³ See Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

¹⁹⁴ See *Phase II 220 MHz Service Auction Closes*, Public Notice, 14 FCC Rcd 605 (Wireless Tel. Bur. 1998).

¹⁹⁵ See *Phase II 220 MHz Service Spectrum Auction Closes*, Public Notice, 14 FCC Rcd 11218 (Wireless Tel. Bur. 1999).

annual receipts, under SBA rules.¹⁹⁶ The second has a size standard of \$30 million or less in annual receipts.¹⁹⁷

66. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”¹⁹⁸ For this category, Census Bureau data for 2007 show that there were a total of 570 firms that operated for the entire year.¹⁹⁹ Of this total, 530 firms had annual receipts of under \$30 million, and 40 firms had receipts of over \$30 million.²⁰⁰ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

67. The second category of Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.”²⁰¹ For this category, Census Bureau data for 2007 show that there were a total of 1,274 firms that operated for the entire year.²⁰² Of this total, 1,252 had annual receipts below \$25 million per year.²⁰³ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

6. Cable Service Providers

68. Because section 706 requires us to monitor the deployment of broadband using any technology, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

69. *Cable and Other Program Distributors.* Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”²⁰⁴ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use

¹⁹⁶ 13 CFR § 121.201, NAICS Code 517410.

¹⁹⁷ 13 CFR § 121.201, NAICS Code 517919.

¹⁹⁸ U.S. Census Bureau, 2012 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2012>.

¹⁹⁹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410 (rel. Nov. 19, 2010).

²⁰⁰ *Id.*

²⁰¹ U.S. Census Bureau, 2012 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012>.

²⁰² U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410 (rel. Nov. 19, 2010).

²⁰³ *Id.*

²⁰⁴ U.S. Census Bureau, 2012 NAICS Definitions, “517110 Wired Telecommunications Carriers,” (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012>.

current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.²⁰⁵ According to Census Bureau data for 2007, there were a total of 2,048 firms in this category that operated for the entire year.²⁰⁶ Of this total, 1,393 firms had annual receipts of under \$10 million, and 655 firms had receipts of \$10 million or more.²⁰⁷ Thus, the majority of these firms can be considered small.

70. *Cable Companies and Systems.* The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers, nationwide.²⁰⁸ Industry data that there are currently 4,600 active cable systems in the United States.²⁰⁹ Of this total, all but nine cable operators are small under the 400,000 subscriber size standard.²¹⁰ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.²¹¹ Current Commission records show 4,945 cable systems nationwide.²¹² Of this total, 4,380 cable systems have less than 20,000 subscribers, and 565 systems have 20,000 or more subscribers, based on the same records. Thus, under this standard, we estimate that most cable systems are small entities.

71. *Cable System Operators.* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."²¹³ The Commission has determined that an operator serving fewer than 677,000

²⁰⁵ 13 CFR § 121.201, NAICS code 517110.

²⁰⁶ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, "Establishment and Firm Size," NAICS code 517110 (rel. Nov. 19, 2010).

²⁰⁷ *Id.*

²⁰⁸ 47 CFR § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

²⁰⁹ See Federal Communications Commission, Cable Operations and Licensing System, <https://apps.fcc.gov/coals/> (last visited Mar. 4, 2016).

CTA, Industry Data, Number of Cable Operating Companies (June 2012), <http://www.ncta.com/Statistics.aspx> (visited Sept. 28, 2012). Depending upon the number of homes and the size of the geographic area served, cable operators use one or more cable systems to provide video service. See *Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, MB Docket No. 12-203, Fifteenth Report, 28 FCC Rcd 10496, 10505-06, para. 24 (2013) (*15th Annual Competition Report*).

²¹⁰ See SNL Kagan Interactive, Media & Communications Data – Cable MSOs, <http://www.snl.com/Sectors/Media/MediaCommunicationsOverview.aspx> (last visited Mar. 3, 2016).

See SNL Kagan, "Top Cable MSOs – 12/12 Q", <http://www.snl.com/InteractiveX/TopCableMSOs.aspx?period=2012Q4&sortcol=subscribersbasic&sortorder=desc>. We note that, when applied to an MVPD operator, under this size standard (i.e., 400,000 or fewer subscribers) all but 14 MVPD operators would be considered small. See NCTA, Industry Data, Top 25 Multichannel Video Service Customers (2012), <http://www.ncta.com/industry-data>. The Commission applied this size standard to MVPD operators in its implementation of the CALM Act. See *Implementation of the Commercial Advertisement Loudness Mitigation (CALM) Act*, MB Docket No. 11-93, Report and Order, 26 FCC Rcd 17222, 17245-46, para. 37 (2011) (*CALM Act Report and Order*) (defining a smaller MVPD operator as one serving 400,000 or fewer subscribers nationwide, as of December 31, 2011).

²¹¹ 47 CFR § 76.901(c).

²¹² The number of active, registered cable systems comes from the Commission's Cable Operations and Licensing System (COALS) database on Aug. 28, 2013. A cable system is a physical system integrated to a principal headend.

²¹³ 47 U.S.C. § 543(m)(2); see 47 CFR § 76.901(f) & nn.1-3.

subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.²¹⁴ Based on available data, we find that all but ten incumbent cable operators are small entities under this size standard.²¹⁵ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,²¹⁶ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

72. The open video system (“OVS”) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.²¹⁷ The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,²¹⁸ OVS falls within the SBA small business size standard covering cable services, which is “Wired Telecommunications Carriers.”²¹⁹ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.²²⁰ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1,000 employees or more.²²¹ Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Order. In addition, we note that the Commission has certified some OVS operators, with some now providing service.²²² Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises.²²³ The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

7. Electric Power Generators, Transmitters, and Distributors

73. *Electric Power Generators, Transmitters, and Distributors.* The Census Bureau defines an industry group comprised of “establishments, primarily engaged in generating, transmitting, and/or distributing electric power. Establishments in this industry group may perform one or more of the

²¹⁴ 47 CFR § 76.901(f); see *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (Cable Services Bureau 2001).

²¹⁵ See NCTA, Industry Data, Top 25 Multichannel Video Service Customers (2012), <http://www.ncta.com/industry-data>.

²¹⁶ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission’s rules. See 47 CFR § 76.909(b).

²¹⁷ 47 U.S.C. § 571(a)(3)-(4). See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 606, para. 135 (2009) (*Thirteenth Annual Cable Competition Report*).

²¹⁸ See 47 U.S.C. § 573.

²¹⁹ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers”; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²²⁰ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

²²¹ See *id.*

²²² A list of OVS certifications may be found at <http://www.fcc.gov/mb/ovs/csovsr.html>.

²²³ See *Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

following activities: (1) operate generation facilities that produce electric energy; (2) operate transmission systems that convey the electricity from the generation facility to the distribution system; and (3) operate distribution systems that convey electric power received from the generation facility or the transmission system to the final consumer.”²²⁴ The SBA has developed a small business size standard for firms in this category: “A firm is small if, including its affiliates, it is primarily engaged in the generation, transmission, and/or distribution of electric energy for sale and its total electric output for the preceding fiscal year did not exceed 4 million megawatt hours.”²²⁵ Census Bureau data for 2007 show that there were 1,174 firms that operated for the entire year in this category.²²⁶ Of these firms, 50 had 1,000 employees or more, and 1,124 had fewer than 1,000 employees.²²⁷ Based on this data, a majority of these firms can be considered small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

74. *Permitted Expenses.* In the Further Notice, when reviewing permitted expenses, the Commission seeks comment on whether it should require rate-of-return carriers to identify their cost consultants, if any, in their FCC Form 481s.²²⁸

75. *Cost Allocation and Affiliate Transactions.* The Commission seeks comment on adopting a rule that would classify certain costs, such as general and administrative expenses, as common costs for purposes of applying the Part 64 and affiliate transaction rules when an entity provides broadband services directly, or through an affiliated entity. Additionally, the Commission asks whether it should clarify or adopt new rules to ensure the proper application of the affiliate transaction rules in light of the provision of retail broadband by affiliates in certain telecommunications markets. More generally, the Commission seeks comment on instances in which additional rules or further clarification could minimize potential misallocations and thereby protect ratepayers of regulated services. While the Commission notes that the used and useful and prudent expenditure standards apply to costs included in affiliate transactions, it seeks comment on whether it should adopt a rule that explicitly prohibits carriers from including in the fully distributed cost of an affiliate any costs that are disallowed from the regulated rate base or revenue requirement, or considered not to be used and useful or prudent expenditures. Finally, the Commission seeks comment on whether additional data would assist in enforcement of the Commission’s accounting and cost allocation rules, while minimizing ETC reporting burden, and if so, what kind of reporting requirements should be implemented.²²⁹

76. *Compliance.* To ensure compliance with the proposed rules for universal service support and tariffing purposes, the Commission invites parties to comment on whether carriers should be required to certify that they have not included any prohibited expenses in their cost submissions used to calculate high-cost support. Additionally, the Commission asked parties to comment on NECA’s role in enforcing these rules, and whether carriers should be subject to any additional reporting requirements.²³⁰

²²⁴ U.S. Census Bureau, 2002 NAICS Definitions, “2211 Electric Power Generation, Transmission and Distribution,” <http://www.census.gov/epcd/naics02/def/NDEF221.HTM> (last visited Oct. 21, 2009).

²²⁵ 13 CFR § 121.201, NAICS codes 221111, 221112, 221113, 221119, 221121, 221122, n. 1.

²²⁶ See U.S. Census Bureau, American FactFinder, Utilities: Subject Series - Establishment and Firm Size: Summary Statistics by Revenue Size of Firms for the United States: 2007, NAICS code 221122, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_22SSSZ5&prodType=table (last visited February 18, 2016).

²²⁷ See *id.*

²²⁸ See *supra* Section IV.A.

²²⁹ See *id.*

²³⁰ See *id.*

77. *Reducing Support in Competitive Areas.* In the Further Notice, the Commission also seeks comment on methods of disaggregation of support that can be implemented with minimal administrative burden for affected carriers and USAC.²³¹ The Commission seeks to avoid complex allocations of the cost of facilities that serve both competitive and non-competitive areas, which could be burdensome for rate-of-return carriers to implement.²³²

78. Additionally, the Commission asks how the non-supported amount is to be recovered by the carrier, assuming such expenses remain regulated expenses for ratemaking purposes.²³³ Specifically, the Commission invites parties to comment on two approaches for recovery of those amounts.²³⁴ First, the Commission could treat the non-supported expenses as being outside the tariffed regulated revenue requirement and allow carriers to assess a detariffed regulated rate to recover those non-supported costs.²³⁵ This would remove those costs from the NECA pooling process. We invite parties to comment on whether the detariffed rates would be outside the prohibition on tariffing deaveraged rates in a study area, or whether a new rule should be adopted. A second option would be to raise the SLC caps for a particular study area to permit the recovery of the amounts not supported by the high-cost program.²³⁶ We invite parties to comment on this alternative, including whether any SLC increases should be allowed only in the competitive area or should apply to the entire study area. Either of these alternatives would create new compliance requirements that could create administrative burdens for small rate-of-return carriers.

79. *Tribal Support.* The Commission seeks comment on adopting rules to increase support to rate-of-return carriers for census blocks that include Tribal lands and unserved with broadband meeting the Commission's current requirements.²³⁷ As part of this line of questioning, the Commission asks how to how best to target Tribal land-specific support to Tribal areas most in need of broadband deployment, which may require filing on behalf of Tribal entities.²³⁸ Additionally, the Commission seeks comment on what specific broadband deployment obligations should be established, if the Commission were to adopt a mechanism to provide additional support on Tribal lands.²³⁹ Identification of specific areas to deploy and the associated deployment obligations could place an administrative and resource burden on small rate-of-return carriers serving Tribal lands.

80. *Other Measures To Improve the Operation of the Current Rate-of-Return System.* We invite commenters to submit into the record any other proposals or ideas for steps the Commission should take to provide appropriate incentives for broadband deployment to unserved areas working within the framework of the existing budget for rate-of-return areas.²⁴⁰ This line of questioning by the Commission is intended to gather new ideas or proposals for further consideration. Therefore, we do not foresee any major burdens being placed on carriers as a result of this portion of the Further Notice.

81. *Streamlining ETC Annual Reporting Requirements.* Lastly, the Commission seeks comment on whether to modify or eliminate five sets of requirements for ETCS to provide: outage

²³¹ See *supra* Section IV.B.

²³² See *id.*

²³³ See *id.*

²³⁴ See *id.*

²³⁵ See *id.*

²³⁶ See *id.*

²³⁷ See *supra* Section IV.C.

²³⁸ See *id.*

²³⁹ See *id.*

²⁴⁰ See *supra* Section IV.D.

information, unfulfilled service requests, the number of complaints per 1,000 subscribers for both voice and broadband service, pricing for both voice and broadband, and certification that they are complying with applicable service quality standards.²⁴¹ Elimination of these ETC reporting requirements would relieve the administrative burden on small rate-of-return carriers.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities and Significant Alternatives Considered

82. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.²⁴² We expect to consider all of these factors when we have received substantive comment from the public and potentially affected entities.

83. With respect to the costs of implementing the proposals to restrict permitted expenses, the Commission seeks comment on the least costly means of implementing any revisions, which would minimize burdens on carriers. We note that many of the proposals with respect to cost allocation would most likely change the way cost allocation is completed, but would not necessarily be any more burdensome.²⁴³ The proposal of identifying cost consultants would add a minimal burden on small entities if adopted because carriers should typically utilize cost consultants to submit information to NECA for purposes of pooling.²⁴⁴

84. In discussing potential compliance procedures, the Commission asks whether there is a current certification that can be modified to encompass a certification that only permitted expenses are included. This methodology seeks to reduce the burden on smaller entities by making a small change instead of creating a new, more involved compliance mechanism.²⁴⁵

85. In the Order, we adopt several methods of disaggregating CAF BLS for areas found to be competitively served and allow carriers to select which method will be used. However, in seeking comment on other methods of disaggregation of support that can be implemented with minimal administrative burden for affected carriers and USAC,²⁴⁶ the Commission takes further steps to reduce administrative and resource burdens on small rate-of-return carriers. We seek to avoid complex allocations of the cost of facilities that that serve both competitive and non-competitive areas, which could be burdensome for rate-of-return carriers to implement.

86. We also invite parties to comment on how the non-supported amount is to be recovered by the carrier, assuming such expenses remain regulated expenses for ratemaking purposes.²⁴⁷ We invite parties to comment on the two approaches for recovery of those amounts.²⁴⁸ We seek to minimize administrative burden under any approach.

²⁴¹ See *supra* Section IV.E.

²⁴² 5 U.S.C. § 603(c).

²⁴³ See *supra* Section IV.A.

²⁴⁴ See *id.*

²⁴⁵ See *id.*

²⁴⁶ See *supra* Section IV.B.

²⁴⁷ See *id.*

²⁴⁸ See *id.*

87. The Commission also invites commenters to submit into the record any other proposals or ideas for steps the Commission should take to provide appropriate incentives for broadband deployment to unserved areas working within the framework of the existing budget for rate-of-return areas.²⁴⁹ The Commission is cognizant of the many compliance burdens small rate-of-return carriers face and seeks to minimize these burdens overall with this line of questioning.

88. In the Order, we update our annual reporting requirements for rate-of-return ETCs as a necessary component of our ongoing efforts to update the support mechanisms for such ETCs to reflect our dual objectives of supporting existing voice and broadband service, while extending broadband to those areas of the country where it is lacking.²⁵⁰ To further lessen the regulatory burden on small rate-of-return carriers, and to improve on the Commission's ability to protect against waste, fraud, and abuse we seek comment on certain, narrowly-tailored reporting changes.²⁵¹ Specifically, the sets of requirements we seek comment on whether to modify or eliminate would reduce rate-of-returns ETCs' compliance burden.

89. More generally, the Commission expects to consider the economic impact on small entities, as identified in comments filed in response to the Notice and this IRFA, in reaching its final conclusions and taking action in this proceeding. The proposals and questions laid out in the Further Notice were designed to ensure the Commission has a complete understanding of the benefits and potential burdens associated with the different actions and methods.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

90. None.

²⁴⁹ See *supra* Section IV.D.

²⁵⁰ See *supra* Section II.E.

²⁵¹ See *supra* Section IV.E.

APPENDIX D

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹ as amended, Initial Regulatory Flexibility Analyses (IRFAs) were incorporated in the *Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking (USF/ICC Transformation NPRM)*, in the *Notice of Inquiry and Notice of Proposed Rulemaking (USF Reform NOI/NPRM)*, in the *Notice of Proposed Rulemaking (Mobility Fund NPRM)*, *Order and Further Notice of Proposed Rulemaking (USF/ICC Transformation Order or FNPRM)*, and in the *Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking (April 2014 Connect America FNPRM)* for this proceeding.² The Commission sought written public comment on the proposals in the *USF/ICC Transformation FNPRM* and *April 2014 Connect America FNPRM*, including comment on the IRFA. The Commission did not receive comments on the *USF/ICC Transformation FNPRM* IRFA or *April 2014 Connect America FNPRM* IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objective of, the Order

2. In the Report and Order, we establish a new forward-looking, efficient mechanism for the distribution of support in rate-of-return areas. Specifically, we adopt a voluntary path under which rate-of-return carriers may elect model-based support for a term of 10 years in exchange for meeting defined build-out obligations.⁴ We emphasize the voluntary nature of this mechanism; no carrier will be required to take model-based support, and the cost model has been adjusted in multiple ways over more than a year to take into account the circumstances of rate-of-return carriers.⁵ We will make available up to an additional \$150 million annually from existing high-cost reserves to facilitate this voluntary path to the model over the next decade.⁶

3. We also reform the existing mechanisms for the distribution of support in rate-of-return areas for those carriers that do not elect to receive model-based support.⁷ We make technical corrections to modernize our existing interstate common line support (ICLS) rules to provide support in situations where the customer no longer subscribes to traditional regulated local exchange voice service, i.e. stand-alone broadband. Going forward, this reformed mechanism will be known as Connect America Fund

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order et al., 29 FCC Rcd 7051, 7216-44, Appx. D (2014) (*April 2014 Connect America FNPRM*); *Connect America Fund et al.*; WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 18364-95, Appx. P (2011) (*USF/ICC Transformation Order and/or FNPRM*); *aff'd sub nom.*, *In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014); *Connect America Fund et al.*; WC Docket No. 10-90 et al., Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4801-28, Appx. E (2011) (*USF/ICC Transformation NPRM*); *Universal Service Reform – Mobility Fund*, WT Docket No. 10-208, Notice of Proposed Rulemaking, 25 FCC Rcd 14,716 (2010) (*Mobility Fund NPRM*); *Connect America Fund et al.*, WC Docket No. 10-90 et al., Notice of Inquiry and Notice of Proposed Rulemaking, 25 FCC Rcd 6657 (2010) (*USF Reform NOI/NPRM*).

³ See 5 U.S.C. § 604.

⁴ See *supra* Section II.A.

⁵ See *supra* Section II.A.1.

⁶ See *id.*

⁷ See *supra* Section II.B.

Broadband Loop Support (CAF BLS).⁸ This simple, forward-looking change to the existing mechanism will provide support for broadband-capable loops in an equitable and stable manner, regardless of whether the customer chooses to purchase traditional voice service, a bundle of voice and broadband, or only broadband. We expect this approach will provide carriers, including those that no longer receive high cost loop support (HCLS), with appropriate support going forward to invest in broadband networks, while not disrupting past investment decisions.

4. One of the core principles of reform since 2011 has been to ensure that support is provided in the most efficient manner possible, recognizing that ultimately American consumers and businesses pay for the universal service fund (USF).⁹ We continue to move forward with our efforts to ensure that companies do not receive more support than is necessary and that rate-of-return carriers have sufficient incentive to be prudent and efficient in their expenditures, and in particular operating expenses. Therefore, we adopt a method to limit operating costs eligible for support under rate-of-return mechanisms, based on a proposal submitted by the carriers.¹⁰ We also adopt measures that will limit the extent to which USF support is used to support capital investment by those rate-of-return carriers that are above the national average in broadband deployment in order to help target support to those areas with less broadband deployment.¹¹ Lastly, to ensure disbursed high-cost support stays within the established budget for rate-of-return carriers,¹² we adopt a self-effectuating mechanism to control total support distributed pursuant to the HCLS and CAF-BLS mechanisms.¹³

5. In 2011, the Commission also stressed the need to “require accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results.”¹⁴ To this end, we adopt deployment obligations that can be measured and monitored for all rate-of-return carriers, while tailoring those obligations to the unique circumstances of individual carriers.¹⁵ Those obligations will be individually sized for each carrier not electing model support, based on the extent to which it has already deployed broadband and its forecasted CAF BLS, taking into account the relative amount of depreciated plant and the density characteristics of individual carriers.

6. Another core tenet of reform adopted by the Commission in 2011,¹⁶ and unanimously reaffirmed in 2014,¹⁷ was to target support to areas that the market will not serve absent subsidy. To direct universal service support to those areas where it is most needed, we adopt a rule prohibiting rate-of-return carriers from receiving CAF-BLS support in those census blocks that are served by a qualifying

⁸ See *supra* Section II.B.2.

⁹ *USF/ICC Transformation Order*, 26 FCC Rcd 17663, 17670-71, paras. 1, 11. See also *id.* at 17682-83, para. 57 (adopting performance goal of minimizing universal service contribution burden on consumers and businesses).

¹⁰ See *supra* Section II.B.3.

¹¹ See *supra* Section II.B.4.

¹² *USF/ICC Transformation Order*, 26 FCC Rcd at 17674, 17768, paras. 27, 286.

¹³ See *supra* Section II.B.6.

¹⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17670-71, para. 11; see also *id.* at 17681, para. 51 (adopting for the goal of ensuring universal availability of broadband an outcome measure based on the number of residential, business, and community anchor institutions that newly gain access to broadband and adopting as an efficiency measure the change in the number of homes, businesses and community anchor institutions passed or covered per million USF dollars spent).

¹⁵ See *supra* Section II.B.7.

¹⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17767, para. 281 (concluding that support should not be provided to areas where unsubsidized facilities-based providers already are competing for customers).

¹⁷ *April 2014 Connect America Order* at 17688-89, para. 68.

unsubsidized competitor.¹⁸ We adopt a robust challenge process to determine which areas are in fact served by a qualifying unsubsidized competitor. Carriers may elect one of several options for disaggregating support for those areas found to be competitive. Any support reductions resulting from implementation of this rule will be more effectively targeted to support existing and new broadband infrastructure in areas lacking a competitor.

7. We also address cost allocation and tariff-related issues raised by adoption of the reforms to high-cost support adopted in this Order for the provision of broadband-only loops. We first create a new service category known as the “Consumer Broadband-Only Loop” category, which will include the costs of the consumer broadband-only loop facilities that today are recovered through special access rates. Second, we require a carrier to move the costs of consumer broadband-only loops from the special access category to the new Consumer Broadband-Only Loop category. These actions will segregate the broadband-only loop investment and expenses from other special access costs currently included in the special access category and preclude double recovery of any costs assigned to the Consumer Broadband-Only Loop category.¹⁹

8. The Commission will allow a rate-of-return carrier electing model-based support to assess a wholesale Consumer Broadband-Only Loop charge that does not exceed \$42 per line per month. This rate cap allows a carrier the opportunity to recover its costs not covered by the model, while limiting the ability of a carrier to engage in a price squeeze against a non-affiliated ISP offering retail broadband service. The retail service provided to the end-user customer is not constrained by this limitation. Carriers electing model-based support that participate in the NECA common line tariff will be allowed to use the NECA tariff to offer their Consumer Broadband-Only Loop service to obtain the administrative benefits of a single tariff filing. They will not be eligible to participate in the NECA common line pooling mechanism, however, because the model-based support mechanism is inconsistent with cost pooling.²⁰

9. A carrier that does not elect model-based support will have an interstate revenue requirement for its Consumer Broadband-Only Loop category. The projected Consumer Broadband-Only Loop revenue requirement will be reduced by the projected amount of CAF BLS attributed to that category in accordance with the procedures in Part 54. The remaining projected revenue requirement is the basis for developing the rates the carrier may assess, based on projected loops. Finally, providing support to consumer broadband-only loops likely will result in the migration of some end users from their current voice/broadband offerings thereby affecting the careful balancing of the recovery mechanism adopted in the *USF/ICC Transformation Order*. To insure that our actions today do not unintentionally increase CAF-ICC support, the Commission requires that rate-of-return carriers impute an amount equal to the ARC charge they would assess on voice/broadband lines to their supported consumer broadband-only lines. Second, we clarify that a carrier must reflect any revenues recovered for use of the facilities previously used to provide the supported service as double recovery in its Tariff Review Plans, which will reduce the amount of CAF ICC it will receive.²¹

10. Finally, we take action to modify our existing reporting requirements in light of lessons learned from their implementation.²² We revise eligible telecommunications carriers’ (ETC) annual reporting requirements to align better those requirements with our statutory and regulatory objectives. We conclude that the public interest will be served by eliminating the requirement to file a narrative update to the five-year plan. Instead, we adopt narrowly-tailored reporting requirements regarding the

¹⁸ See *supra* Section II.B.5.

¹⁹ See *supra* Section II.C.1.

²⁰ See *supra* Section II.C.2.

²¹ See *supra* Section II.C.3.

²² See *supra* Section II.E.

location of new deployment offering service at various speeds, which will better enable the Commission to determine on an annual basis how high-cost support is being used to “improve broadband availability, service quality, and capacity at the smallest geographic area possible.”²³

11. In the Order and Order on Reconsideration, the Commission represcribes the currently authorized rate of return from 11.25 percent to 9.75.²⁴ The Commission explains that a rate of return higher than necessary to attract capital to investment results in excessive profit for rate-of-return carriers and unreasonably high prices for consumers.²⁵ It also inefficiently distorts carrier operations, resulting in waste in the sense that, but for these distortions, more services, including broadband services, would be provided at the same cost.²⁶ Relying primarily on the methodology and data contained in a Commission staff report and public comments, we identify a more robust zone of reasonableness and adopt a new rate of return at the upper end of this range at 9.75 percent.²⁷ As part of its estimation of the rate of return, the Commission revises its rule for calculating the cost of debt, an input in the cost of capital formula used to estimate the rate of return, to account for an overstatement of the interest expense contained in the rules.²⁸ The new rate of return of 9.75 percent will be phased-in gradually over a six-year period.²⁹

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

12. There were no comments raised that specifically addressed the proposed rules and policies presented in the *USF/ICC Transformation FNPRM* IRFA or *April 2014 Connect America FNPRM* IRFA.³⁰ Nonetheless, the Commission considered the potential impact of the rules proposed in the IRFA on small entities and reduced the compliance burden for all small entities in order to reduce the economic impact of the rules enacted herein on such entities.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

13. Pursuant to the Small Business Jobs Act of 2010,³¹ which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rule(s) as a result of those comments.

14. The Chief Counsel did not file any comments in response to the proposed rule(s) in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Would Apply

15. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.³² The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small

²³ See July 2014 GAO High-Cost Report at 31.

²⁴ See *supra* Section III.B.5.f.

²⁵ See *id.*

²⁶ See *id.*

²⁷ See *supra* Section III.B.5.e.

²⁸ See *supra* Section III.B.5.f.

²⁹ See *supra* Section III.B.6.

³⁰ See *USF/ICC Transformation FNPRM*, 26 FCC Rcd at 18333-34, paras. 38-39.

³¹ 5 U.S.C. Sec. 604(a)(3).

³² See 5 U.S.C. § 603(b)(3).

organization,” and “small governmental jurisdiction.”³³ In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.³⁴ A small-business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).³⁵

1. Total Small Entities

16. Our proposed action, if implemented, may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.³⁶ First, nationwide, there are a total of approximately 28.2 million small businesses, according to the SBA, which represents 99.7% of all businesses in the United States.³⁷ In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”³⁸ Nationwide, as of 2007, there were approximately 1,621,215 small organizations.³⁹ Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”⁴⁰ Census Bureau data for 2011 indicate that there were 90,056 local governmental jurisdictions in the United States.⁴¹ We estimate that, of this total, as many as 89,327 entities may qualify as “small governmental jurisdictions.”⁴² Thus, we estimate that most governmental jurisdictions are small.

³³ See 5 U.S.C. § 601(6).

³⁴ See 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

³⁵ See 15 U.S.C. § 632.

³⁶ See 5 U.S.C. §§ 601(3)-(6).

³⁷ See SBA, Office of Advocacy, *Frequently Asked Questions*, http://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf.

³⁸ 5 U.S.C. § 601(4).

³⁹ Indep. Sector, *The New Nonprofit Almanac and Desk Reference* (2010).

⁴⁰ 5 U.S.C. § 601(5).

⁴¹ See SBA, Office of Advocacy - Frequently Asked Questions, https://www.sba.gov/sites/default/files/FAQ_March_2014_0.pdf (last visited Mar. 4, 2016). U.S. Census Bureau, *Statistical Abstract of the United States: 2012*, Section 8, page 267, tbl. 429, <https://www.census.gov/compendia/statab/2012/tables/12s0429.pdf> (data cited therein are from 2007).

⁴² The 2011 Census data for small governmental organizations are not presented based on the size of the population in each organization. As stated above, there were 90,056 local governmental organizations in 2011. As a basis for estimating how many of these 90,056 local organizations were small, in 2011 we note that there were a total of 729 cities and towns (incorporated places and minor civil divisions) with populations over 50,000. See U.S. Census Bureau, *American Fact Finder*, <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> (last visited Mar. 4, 2016). If we subtract the 729 cities and towns that exceed the 50,000 population threshold, we conclude that approximately 89,327 are small.

2007 U.S. Census data for small governmental organizations are not presented based on the size of the population in each such organization. There were 89,476 local governmental organizations in 2007. If we assume that county, municipal, township, and school district organizations are more likely than larger governmental organizations to have populations of 50,000 or less, the total of these organizations is 52,095. As a basis of estimating how many of these 89,476 local government organizations were small, in 2011, we note that there were a total of 715 cities and

(continued....)

2. Broadband Internet Access Service Providers

17. The rules adopted in the Order apply to broadband Internet access service providers. The Economic Census places these firms, whose services might include Voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider's own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,⁴³ which has an SBA small business size standard of 1,500 or fewer employees.⁴⁴ These are also labeled "broadband." The latter are within the category of All Other Telecommunications,⁴⁵ which has a size standard of annual receipts of \$32.5 million or less.⁴⁶ These are labeled non-broadband. According to Census Bureau data for 2007, there were 3,188 firms in the first category, total, that operated for the entire year.⁴⁷ Of this total, 3144 firms had employment of 999 or fewer employees, and 44 firms had employment of 1,000 employees or more.⁴⁸ For the second category, the data show that 2,383 firms operated for the entire year.⁴⁹ Of those, 2,346 had annual receipts below \$32.5 million per year. Consequently, we estimate that the majority of broadband Internet access service provider firms are small entities.

18. The broadband Internet access service provider industry has changed since this definition was introduced in 2007. The data cited above may therefore include entities that no longer provide broadband Internet access service, and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing broadband Internet access service. We note that, although we have no specific information on the number of small entities that provide broadband Internet access service over unlicensed spectrum, we include these entities in our Final Regulatory Flexibility Analysis.

3. Wireline Providers

19. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LEC services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁰ According to

(Continued from previous page) —————
towns (incorporated places and minor civil divisions) with populations over 50,000. City and Town Totals Vintage: 2011 – U.S. Census Bureau, <http://www.census.gov/popest/data/cities/totals/2011/index.html>. If we subtract the 715 cities and towns that meet or exceed the 50,000 population threshold, we conclude that approximately 88,761 are small. U.S. Census Bureau, Statistical Abstract of the United States: 2012, Section 8, page 267, tbl. 429, <https://www.census.gov/compendia/statab/2012/tables/12s0429.pdf/> (data cited therein are from 2007).

⁴³ U.S. Census Bureau, 2012 NAICS Definitions, "517110 Wired Telecommunications Carriers," <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012%20NAICS%20Search>.

⁴⁴ 13 CFR § 121.201, NAICS code 517110.

⁴⁵ U.S. Census Bureau, 2012 NAICS Definitions, "517919 All Other Telecommunications," <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012%20NAICS%20Search>.

⁴⁶ 13 CFR § 121.201, NAICS code 517919.

⁴⁷ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, "Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517110" (issued Nov. 2010).

⁴⁸ See *id.*

⁴⁹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, "Establishment and Firm Size," NAICS code 5179191 (rel. Nov. 19, 2010) (receipts size).

⁵⁰ 13 CFR § 121.201, NAICS code 517110.

Commission data,⁵¹ 1,307 carriers reported that they were incumbent LEC providers.⁵² Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.⁵³ Consequently, the Commission estimates that most providers of incumbent LEC service are small businesses that may be affected by rules adopted pursuant to the Order.

20. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁴ According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.⁵⁵ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.⁵⁶ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.⁵⁷ In addition, 72 carriers have reported that they are Other Local Service Providers.⁵⁸ Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.⁵⁹ Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities that may be affected by rules adopted pursuant to the Order.

21. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”⁶⁰ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.⁶¹ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

22. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a

⁵¹ Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁵² See *Trends in Telephone Service* at tbl. 5.3.

⁵³ See *id.*

⁵⁴ 13 CFR § 121.201, NAICS code 517110.

⁵⁵ See *Trends in Telephone Service* at tbl.5.3.

⁵⁶ See *id.*

⁵⁷ See *id.*

⁵⁸ See *id.*

⁵⁹ See *id.*

⁶⁰ 5 U.S.C. § 601(3).

⁶¹ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

business is small if it has 1,500 or fewer employees.⁶² According to Commission data,⁶³ 359 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by rules adopted pursuant to the Order.

23. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁴ According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁵ Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by rules adopted pursuant to the Order.

24. *Prepaid Calling Card Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁶ According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.⁶⁷ Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.⁶⁸ Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by rules adopted pursuant to the Order.

25. *Local Resellers*. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁹ According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁷⁰ Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.⁷¹ Consequently, the Commission estimates that the majority of local resellers are small entities that may be affected by rules adopted pursuant to the Order.

26. *Toll Resellers*. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷² According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁷³ Of these, an estimated 857 have 1,500 or fewer employees and 24 have

⁶² 13 CFR § 121.201, NAICS code 517110.

⁶³ *Trends in Telephone Service*, tbl. 5.3.

⁶⁴ 13 CFR § 121.201, NAICS code 517110.

⁶⁵ *Trends in Telephone Service*, tbl. 5.3.

⁶⁶ See 13 CFR § 121.201, NAICS code 517911.

⁶⁷ See *Trends in Telephone Service* at Table 5.3.

⁶⁸ See *id.*

⁶⁹ See 13 CFR § 121.201, NAICS code 517911.

⁷⁰ See *Trends in Telephone Service* at Table 5.3.

⁷¹ See *id.*

⁷² See 13 CFR § 121.201, NAICS code 517911.

⁷³ See *Trends in Telephone Service* at Table 5.3.

more than 1,500 employees.⁷⁴ Consequently, the Commission estimates that the majority of toll resellers are small entities that may be affected by rules adopted pursuant to the Order.

27. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁵ According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.⁷⁶ Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.⁷⁷ Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by the rules and policies adopted pursuant to the Order.

28. *800 and 800-Like Service Subscribers.*⁷⁸ Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁹ The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.⁸⁰ According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.⁸¹ We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers; 5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

4. Wireless Providers – Fixed and Mobile

29. The broadband Internet access service provider category covered by this Order may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

⁷⁴ See *id.*

⁷⁵ See 13 CFR § 121.201, NAICS code 517110.

⁷⁶ See *Trends in Telephone Service* at Table 5.3.

⁷⁷ See *id.*

⁷⁸ We include all toll-free number subscribers in this category, including those for 888 numbers.

⁷⁹ See 13 CFR § 121.201, NAICS code 517911.

⁸⁰ See *Trends in Telephone Service* at Tables 18.7-18.10.

⁸¹ See *id.*

30. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁸² Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁸³ For the category of Wireless Telecommunications Carriers (except Satellite), census data for 2007 show that there were 1,383 firms that operated for the entire year.⁸⁴ Of this total, 1,368 firms had employment of 999 or fewer employees and 15 had employment of 1,000 employees or more.⁸⁵ Since all firms with fewer than 1,500 employees are considered small, given the total employment in the sector, we estimate that the vast majority of wireless firms are small.

31. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁸⁶ The SBA has approved these definitions.⁸⁷

32. *218-219 MHz Service*. The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.⁸⁸ In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a “small business” as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed \$15 million for the preceding three years.⁸⁹ A “very small business” is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed \$3 million for the preceding three years.⁹⁰ These size standards will be used in future auctions of 218-219 MHz spectrum.

33. *2.3 GHz Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (“WCS”) auction as an entity with average gross revenues of \$40

⁸² U.S. Census Bureau, 2012 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite)”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517210&search=2012%20NAICS%20Search>.

⁸³ 13 CFR § 121.201, NAICS code 517210 (2012 NAICS). The now-superseded, pre-2007 CFR citations were 13 CFR § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁸⁴ U.S. Census Bureau, Subject Series: Information, Table 5, “Establishment and Firm Size: Employment Size of Firms for the United States: 2007 NAICS Code 517210” (issued Nov. 2010).

⁸⁵ See *id.*

⁸⁶ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

⁸⁷ See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

⁸⁸ See generally *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

⁸⁹ See generally *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999) (*218-219 MHz Report and Order and Memorandum Opinion and Order*).

⁹⁰ See *id.*

million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁹¹ The SBA has approved these definitions.⁹² The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

34. *1670–1675 MHz Services.* This service can be used for fixed and mobile uses, except aeronautical mobile.⁹³ An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

35. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁹⁴ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁹⁵ According to Commission data, 413 carriers reported that they were engaged in wireless telephony.⁹⁶ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.⁹⁷ Therefore, a little less than one third of these entities can be considered small.

36. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.⁹⁸ For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁹⁹ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.¹⁰⁰ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.¹⁰¹ On April 15, 1999, the Commission

⁹¹ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879 para. 194 (1997).

⁹² *See Alvarez Letter 1998.*

⁹³ 47 CFR § 2.106; *see generally* 47 CFR §§ 27.1-27.70.

⁹⁴ 13 CFR § 121.201, NAICS code 517210.

⁹⁵ *Id.*

⁹⁶ *Trends in Telephone Service*, tbl. 5.3.

⁹⁷ *Id.*

⁹⁸ *See Amendment of Parts 20 and 24 of the Commission’s Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission’s Cellular/PCS Cross-Ownership Rule*; WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824, 7850-52, paras. 57-60 (1996) (*PCS Report and Order*); *see also* 47 CFR § 24.720(b).

⁹⁹ *See PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

¹⁰⁰ *See Alvarez Letter 1998.*

¹⁰¹ *See Broadband PCS, D, E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.¹⁰² Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

37. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.¹⁰³ Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.¹⁰⁴ On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.¹⁰⁵ Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.¹⁰⁶ On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.¹⁰⁷ Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.¹⁰⁸

38. *Specialized Mobile Radio Licenses.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.¹⁰⁹ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.¹¹⁰ The SBA has approved these small business size standards for the 900 MHz Service.¹¹¹ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹¹²

¹⁰² See *C, D, E, and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission’s Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

¹⁰³ See *C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

¹⁰⁴ See *Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

¹⁰⁵ See *Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

¹⁰⁶ *Id.*

¹⁰⁷ See *Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

¹⁰⁸ *Id.*

¹⁰⁹ 47 CFR § 90.814(b)(1).

¹¹⁰ *Id.*

¹¹¹ See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (filed Aug. 10, 1999) (*Alvarez Letter 1999*).

¹¹² See *Correction to Public Notice DA 96-586 “FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,”* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹¹³

39. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the \$15 million size standard.¹¹⁴ In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹¹⁵ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

40. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.¹¹⁶ We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

41. *Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.¹¹⁷ The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹¹⁸ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹¹⁹ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.¹²⁰ The SBA approved these small size standards.¹²¹ An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.¹²² A second auction commenced on May 28, 2003, closed on June

¹¹³ See *Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

¹¹⁴ See *800 MHz Specialized Mobile Radio (SMR) Service General Category (851–854 MHz) and Upper Band (861–865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

¹¹⁵ See *800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

¹¹⁶ See generally 13 CFR § 121.201, NAICS code 517210.

¹¹⁷ See *Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

¹¹⁸ See *id.* at 1087-88, para. 172.

¹¹⁹ See *id.*

¹²⁰ See *id.*, at 1088, para. 173.

¹²¹ See *Alvarez Letter 1999*.

¹²² See *Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.¹²³ Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.¹²⁴ On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

42. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.¹²⁵ An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.¹²⁶ Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) won 325 licenses.

43. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.¹²⁷ On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.¹²⁸ The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

44. *700 MHz Guard Band Licensees*. In 2000, in the 700 MHz Guard Band Order, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹²⁹ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹³⁰ Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹³¹ SBA approval of these

¹²³ See *id.*

¹²⁴ See *id.*

¹²⁵ *Service Rules for the 698–746, 747–762 and 777–792 MHz Band; Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review—Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission’s Part 1 Anti-Collusion Rule*, WT Docket Nos. 07-166, 06-169, 06-150, 03-264, 96-86, PS Docket No. 06-229, CC Docket No. 94-102, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007) (*700 MHz Second Report and Order*).

¹²⁶ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

¹²⁷ *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

¹²⁸ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

¹²⁹ See *Service Rules for the 746–764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*746–764 MHz Band Second Report and Order*).

¹³⁰ See *id.* at 5343, para. 108.

¹³¹ See *id.*

definitions is not required.¹³² An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000.¹³³ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹³⁴

45. *Cellular Radiotelephone Service.* Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.¹³⁵ Bidding credits for designated entities were not available in Auction 77.¹³⁶ In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling \$25,002.¹³⁷

46. *Private Land Mobile Radio (“PLMR”).* PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee’s primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.¹³⁸ The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.¹³⁹

47. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

48. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.¹⁴⁰ A significant subset of the Rural

¹³² See *id.* at 5343, para. 108 n.246 (for the 746–764 MHz and 776–794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

¹³³ See *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

¹³⁴ See *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

¹³⁵ See *Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77*, Public Notice, 23 FCC Rcd 6670 (Wireless Tel. Bur. 2008).

¹³⁶ *Id.* at 6685.

¹³⁷ See *Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008*, Public Notice, 23 FCC Rcd 9501 (WTB 2008).

¹³⁸ See 13 CFR § 121.201, NAICS code 517210.

¹³⁹ See generally 13 CFR § 121.201.

¹⁴⁰ The service is defined in 47 CFR § 22.99.

Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).¹⁴¹ In the present context, we will use the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.¹⁴² There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

49. *Air-Ground Radiotelephone Service.* The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.¹⁴³ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million.¹⁴⁴ A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.¹⁴⁵ These definitions were approved by the SBA.¹⁴⁶ In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

50. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.¹⁴⁷ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁴⁸ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we

¹⁴¹ BETRS is defined in 47 CFR §§ 22.757 and 22.759.

¹⁴² 13 CFR § 121.201, NAICS code 517210.

¹⁴³ 13 CFR § 121.201, NAICS codes 517210.

¹⁴⁴ *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services, Biennial Regulatory Review—Amendment of Parts 1, 22, and 90 of the Commission's Rules, Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, WT Docket Nos. 03-103, 05-42, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).

¹⁴⁵ *Id.*

¹⁴⁶ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission (filed Sept. 19, 2005).

¹⁴⁷ See 13 CFR § 121.201, NAICS code 517210.

¹⁴⁸ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars.¹⁴⁹ In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.¹⁵⁰ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards and may be affected by rules adopted pursuant to the Order.

51. *Advanced Wireless Services (AWS) (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)).* For the AWS-1 bands,¹⁵¹ the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.¹⁵²

52. *3650–3700 MHz band.* In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

53. *Fixed Microwave Services.* Microwave services include common carrier,¹⁵³ private-operational fixed,¹⁵⁴ and broadcast auxiliary radio services.¹⁵⁵ They also include the Local Multipoint

¹⁴⁹ See generally *Amendment of the Commission’s Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

¹⁵⁰ See *id.*

¹⁵¹ The service is defined in section 90.1301 *et seq.* of the Commission’s Rules, 47 CFR § 90.1301 *et seq.*

¹⁵² See *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Report and Order, 18 FCC Rcd 25162, Appx. B (2003), modified by *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Order on Reconsideration, 20 FCC Rcd 14058, Appx. C (2005); *Service Rules for Advanced Wireless Services in the 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz Bands*; *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket Nos. 04-356, 02-353, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, Appx. B (2005); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, WT Docket No. 07-195, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, Appx. (2007).

¹⁵³ See 47 CFR Part 101, Subparts C and I.

¹⁵⁴ See 47 CFR Part 101, Subparts C and H.

¹⁵⁵ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission’s Rules. See 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary

(continued....)

Distribution Service (LMDS),¹⁵⁶ the Digital Electronic Message Service (DEMS),¹⁵⁷ and the 24 GHz Service,¹⁵⁸ where licensees can choose between common carrier and non-common carrier status.¹⁵⁹ At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. For purposes of the FRFA, we will use the SBA's definition applicable to Wireless Telecommunications Carriers (except satellite)—i.e., an entity with no more than 1,500 persons.¹⁶⁰ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.¹⁶¹ The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

54. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.¹⁶² There are presently approximately 55 licensees in this service. The Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite). Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.¹⁶³ Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year.¹⁶⁴ Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus, under this category and the associated small business size standard, the majority of firms can be considered small.

55. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous calendar years.¹⁶⁵ An additional size standard for “very small business” is: an entity that, together with

(Continued from previous page) —————

microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

¹⁵⁶ See 47 CFR Part 101, Subpart L.

¹⁵⁷ See 47 CFR Part 101, Subpart G.

¹⁵⁸ See *id.*

¹⁵⁹ See 47 CFR §§ 101.533, 101.1017.

¹⁶⁰ 13 CFR § 121.201, NAICS code 517210.

¹⁶¹ 13 CFR § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 CFR citations were 13 CFR § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

¹⁶² This service is governed by Subpart I of Part 22 of the Commission's Rules. See 47 CFR §§ 22.1001-22.1037.

¹⁶³ *Id.*

¹⁶⁴ U.S. Census Bureau, 2007 Economic Census, Sector 51, 2007 NAICS code 517210 (rel. Oct. 20, 2009), http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-fds_name=EC0700A1&-_skip=700&-ds_name=EC0751SSSZ5&-_lang=en.

¹⁶⁵ See *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661-64, paras. 149-151 (1997).

affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁶⁶ The SBA has approved these small business size standards.¹⁶⁷ The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the Order.

56. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).¹⁶⁸ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹⁶⁹ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹⁷⁰ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules.

57. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.¹⁷¹ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.¹⁷² Auction 86 concluded in 2009 with

¹⁶⁶ *See id.*

¹⁶⁷ *See* Letter to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

¹⁶⁸ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, MM Docket No. 94-131, PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

¹⁶⁹ 47 CFR § 21.961(b)(1).

¹⁷⁰ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard of 1500 or fewer employees.

¹⁷¹ Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86, AU Docket No. 09-56, *Public Notice*, 24 FCC Rcd 8277 (2009).

¹⁷² *Id.* at 8296 para. 73.

the sale of 61 licenses.¹⁷³ Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

58. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,436 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹⁷⁴ Thus, we estimate that at least 2,336 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."¹⁷⁵ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use the most current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.¹⁷⁶ According to Census Bureau data for 2007, there were a total of 996 firms in this category that operated for the entire year.¹⁷⁷ Of this total, 948 firms had annual receipts of under \$10 million, and 48 firms had receipts of \$10 million or more but less than \$25 million.¹⁷⁸ Thus, the majority of these firms can be considered small.

59. *Narrowband Personal Communications Services.* In 1994, the Commission conducted an auction for Narrowband PCS licenses. A second auction was also conducted later in 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of \$40 million or less.¹⁷⁹ Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.¹⁸⁰ To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.¹⁸¹ A "small

¹⁷³ Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period, *Public Notice*, 24 FCC Rcd 13572 (2009).

¹⁷⁴ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

¹⁷⁵ U.S. Census Bureau, 2012 NAICS Definitions, "517110 Wired Telecommunications Carriers," (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012>.

¹⁷⁶ 13 CFR § 121.201, NAICS code 517110.

¹⁷⁷ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Receipts by Enterprise Employment Size for the United States: 2007, NAICS code 517510 (rel. Nov. 19, 2010).

¹⁷⁸ *Id.*

¹⁷⁹ *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, PP Docket No. 93-253, GEN Docket No. 90-314, ET Docket No. 92-100, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

¹⁸⁰ *See Announcing the High Bidders in the Auction of Ten Nationwide Narrowband PCS Licenses, Winning Bids Total \$617,006,674*, Public Notice, PNWL 94-004 (rel. Aug. 2, 1994); *Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total \$490,901,787*, Public Notice, PNWL 94-27 (rel. Nov. 9, 1994).

¹⁸¹ *Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, *Narrowband PCS, Second Report and Order and Second* (continued....)

business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$40 million.¹⁸² A “very small business” is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million.¹⁸³ The SBA has approved these small business size standards.¹⁸⁴ A third auction was conducted in 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.¹⁸⁵ Three of these claimed status as a small or very small entity and won 311 licenses.

60. *Paging (Private and Common Carrier).* In the *Paging Third Report and Order*, we developed a small business size standard for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁸⁶ A “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA has approved these small business size standards.¹⁸⁷ According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.¹⁸⁸ Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.¹⁸⁹ Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses.¹⁹⁰ A subsequent auction of MEA and Economic Area (“EA”) licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.¹⁹¹ One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.¹⁹² A fourth auction, consisting of 9,603 lower and

(Continued from previous page)

Further Notice of Proposed Rule Making, 15 FCC Rcd 10456, 10476, para. 40 (2000) (*Narrowband PCS Second Report and Order*).

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from A. Alvarez, Administrator, SBA (Dec. 2, 1998) (*Alvarez Letter 1998*).

¹⁸⁵ See *Narrowband PCS Auction Closes*, Public Notice, 16 FCC Rcd 18663 (Wireless Tel. Bur. 2001).

¹⁸⁶ See *Revision of Part 22 and Part 90 of the Commission’s Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*).

¹⁸⁷ See *Alvarez Letter 1998*.

¹⁸⁸ See *Trends in Telephone Service* at Table 5.3.

¹⁸⁹ See *id.*

¹⁹⁰ See *id.*

¹⁹¹ See *Lower and Upper Paging Band Auction Closes*, Public Notice, 16 FCC Rcd 21821 (Wireless Tel. Bur. 2002).

¹⁹² See *Lower and Upper Paging Bands Auction Closes*, Public Notice, 18 FCC Rcd 11154 (Wireless Tel. Bur. 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.¹⁹³

61. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.¹⁹⁴ The Commission estimates that nearly all such licensees are small businesses under the SBA's small business size standard that may be affected by rules adopted pursuant to the Order.

62. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁹⁵ This small business size standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.¹⁹⁶ A “very small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.¹⁹⁷ The SBA has approved these small business size standards.¹⁹⁸ Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.¹⁹⁹ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.²⁰⁰

5. Satellite Service Providers

63. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. The first category has a small business size standard of \$30 million or less in average

¹⁹³ See *Auction of Lower and Upper Paging Bands Licenses Closes*, Public Notice, 25 FCC Rcd 18164 (Wireless Tel. Bur. 2010).

¹⁹⁴ See 13 CFR § 121.201, NAICS code 517210.

¹⁹⁵ See *Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

¹⁹⁶ See *id.* at 11068–69, para. 291.

¹⁹⁷ See *id.* at 11068–70, paras. 291–95.

¹⁹⁸ See Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

¹⁹⁹ See *Phase II 220 MHz Service Auction Closes*, Public Notice, 14 FCC Rcd 605 (Wireless Tel. Bur. 1998).

²⁰⁰ See *Phase II 220 MHz Service Spectrum Auction Closes*, Public Notice, 14 FCC Rcd 11218 (Wireless Tel. Bur. 1999).

annual receipts, under SBA rules.²⁰¹ The second has a size standard of \$30 million or less in annual receipts.²⁰²

64. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”²⁰³ For this category, Census Bureau data for 2007 show that there were a total of 570 firms that operated for the entire year.²⁰⁴ Of this total, 530 firms had annual receipts of under \$30 million, and 40 firms had receipts of over \$30 million.²⁰⁵ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

65. The second category of Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.”²⁰⁶ For this category, Census Bureau data for 2007 show that there were a total of 1,274 firms that operated for the entire year.²⁰⁷ Of this total, 1,252 had annual receipts below \$25 million per year.²⁰⁸ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

6. Cable Service Providers

66. Because section 706 requires us to monitor the deployment of broadband using any technology, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

67. *Cable and Other Program Distributors.* Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”²⁰⁹ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use

²⁰¹ 13 CFR § 121.201, NAICS Code 517410.

²⁰² 13 CFR § 121.201, NAICS Code 517919.

²⁰³ U.S. Census Bureau, 2012 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2012>.

²⁰⁴ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410 (rel. Nov. 19, 2010).

²⁰⁵ *Id.*

²⁰⁶ U.S. Census Bureau, 2012 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517919&search=2012>.

²⁰⁷ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410 (rel. Nov. 19, 2010).

²⁰⁸ *Id.*

²⁰⁹ U.S. Census Bureau, 2012 NAICS Definitions, “517110 Wired Telecommunications Carriers,” (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517110&search=2012>.

current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.²¹⁰ According to Census Bureau data for 2007, there were a total of 2,048 firms in this category that operated for the entire year.²¹¹ Of this total, 1,393 firms had annual receipts of under \$10 million, and 655 firms had receipts of \$10 million or more.²¹² Thus, the majority of these firms can be considered small.

68. *Cable Companies and Systems.* The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers, nationwide.²¹³ Industry data that there are currently 4,600 active cable systems in the United States.²¹⁴ Of this total, all but nine cable operators are small under the 400,000 subscriber size standard.²¹⁵ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.²¹⁶ Current Commission records show 4,945 cable systems nationwide.²¹⁷ Of this total, 4,380 cable systems have less than 20,000 subscribers, and 565 systems have 20,000 or more subscribers, based on the same records. Thus, under this standard, we estimate that most cable systems are small entities.

69. *Cable System Operators.* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."²¹⁸ The Commission has determined that an operator serving fewer than 677,000

²¹⁰ 13 CFR § 121.201, NAICS code 517110.

²¹¹ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, "Establishment and Firm Size," NAICS code 517110 (rel. Nov. 19, 2010).

²¹² *Id.*

²¹³ 47 CFR § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

²¹⁴ See Federal Communications Commission, Cable Operations and Licensing System, <https://apps.fcc.gov/coals/> (last visited Mar. 4, 2016).

CTA, Industry Data, Number of Cable Operating Companies (June 2012), <http://www.ncta.com/Statistics.aspx> (visited Sept. 28, 2012). Depending upon the number of homes and the size of the geographic area served, cable operators use one or more cable systems to provide video service. See *Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, MB Docket No. 12-203, Fifteenth Report, 28 FCC Rcd 10496, 10505-06, para. 24 (2013) (*15th Annual Competition Report*).

²¹⁵ See SNL Kagan Interactive, Media & Communications Data – Cable MSOs, <http://www.snl.com/Sectors/Media/MediaCommunicationsOverview.aspx> (last visited Mar. 3, 2016).

See SNL Kagan, "Top Cable MSOs – 12/12 Q", <http://www.snl.com/InteractiveX/TopCableMSOs.aspx?period=2012Q4&sortcol=subscribersbasic&sortorder=desc>. We note that, when applied to an MVPD operator, under this size standard (i.e., 400,000 or fewer subscribers) all but 14 MVPD operators would be considered small. See NCTA, Industry Data, Top 25 Multichannel Video Service Customers (2012), <http://www.ncta.com/industry-data>. The Commission applied this size standard to MVPD operators in its implementation of the CALM Act. See *Implementation of the Commercial Advertisement Loudness Mitigation (CALM) Act*, MB Docket No. 11-93, Report and Order, 26 FCC Rcd 17222, 17245-46, para. 37 (2011) (*CALM Act Report and Order*) (defining a smaller MVPD operator as one serving 400,000 or fewer subscribers nationwide, as of December 31, 2011).

²¹⁶ 47 CFR § 76.901(c).

²¹⁷ The number of active, registered cable systems comes from the Commission's Cable Operations and Licensing System (COALS) database on Aug. 28, 2013. A cable system is a physical system integrated to a principal headend.

²¹⁸ 47 U.S.C. § 543(m)(2); see 47 CFR § 76.901(f) & nn.1-3.

subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.²¹⁹ Based on available data, we find that all but ten incumbent cable operators are small entities under this size standard.²²⁰ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,²²¹ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

70. The open video system (“OVS”) framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.²²² The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,²²³ OVS falls within the SBA small business size standard covering cable services, which is “Wired Telecommunications Carriers.”²²⁴ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year.²²⁵ Of this total, 939 firms had employment of 999 or fewer employees, and 16 firms had employment of 1,000 employees or more.²²⁶ Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Order. In addition, we note that the Commission has certified some OVS operators, with some now providing service.²²⁷ Broadband service providers (“BSPs”) are currently the only significant holders of OVS certifications or local OVS franchises.²²⁸ The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

7. Electric Power Generators, Transmitters, and Distributors

71. *Electric Power Generators, Transmitters, and Distributors.* The Census Bureau defines an industry group comprised of “establishments, primarily engaged in generating, transmitting, and/or distributing electric power. Establishments in this industry group may perform one or more of the

²¹⁹ 47 CFR § 76.901(f); see *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (Cable Services Bureau 2001).

²²⁰ See NCTA, Industry Data, Top 25 Multichannel Video Service Customers (2012), <http://www.ncta.com/industry-data>.

²²¹ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission’s rules. See 47 CFR § 76.909(b).

²²² 47 U.S.C. § 571(a)(3)-(4). See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 606, para. 135 (2009) (*Thirteenth Annual Cable Competition Report*).

²²³ See 47 U.S.C. § 573.

²²⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers”; <http://www.census.gov/naics/2007/def/ND517110.HTM#N517110>.

²²⁵ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, Table 5, Employment Size of Firms for the United States: 2007, NAICS code 5171102 (issued Nov. 2010).

²²⁶ See *id.*

²²⁷ A list of OVS certifications may be found at <http://www.fcc.gov/mb/ovs/csovsr.html>.

²²⁸ See *Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

following activities: (1) operate generation facilities that produce electric energy; (2) operate transmission systems that convey the electricity from the generation facility to the distribution system; and (3) operate distribution systems that convey electric power received from the generation facility or the transmission system to the final consumer.”²²⁹ The SBA has developed a small business size standard for firms in this category: “A firm is small if, including its affiliates, it is primarily engaged in the generation, transmission, and/or distribution of electric energy for sale and its total electric output for the preceding fiscal year did not exceed 4 million megawatt hours.”²³⁰ Census Bureau data for 2007 show that there were 1,174 firms that operated for the entire year in this category.²³¹ Of these firms, 50 had 1,000 employees or more, and 1,124 had fewer than 1,000 employees.²³² Based on this data, a majority of these firms can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

72. In the Report and Order, we require all rate-of-return ETCs to submit annually a list of the geocoded locations to which they have newly deployed facilities capable of delivering broadband in lieu of annual narrative reporting. To lessen the burden, in the Report and Order we direct the Bureau to work with USAC to develop an online portal that will enable carriers to submit the requisite information on a rolling basis throughout the year as construction is completed and service becomes commercially available, with any final submission no later than March 1 of the following year.²³³

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

73. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.²³⁴ We have considered all of these factors subsequent to receiving substantive comments from the public and potentially affected entities. The Commission has considered the economic impact on small entities, as identified in comments filed in response to the *USF/ICC Transformation NPRM and FNRPM* and their IRFAs, in reaching its final conclusions and taking action in this proceeding.

74. The rules that we adopt in the Report and Order and Order and Order on Reconsideration take steps to provide greater certainty and flexibility to rate-of-return carriers, many of which are small entities. For example, we adopt a voluntary path for rate-of-return carriers to elect to receive model-based support in exchange for deploying broadband-capable networks to a pre-determined number of eligible locations. The Commission recognizes that permitting rate-of-return carriers to elect to receive specific

²²⁹ U.S. Census Bureau, 2002 NAICS Definitions, “2211 Electric Power Generation, Transmission and Distribution,” <http://www.census.gov/epcd/naics02/def/NDEF221.HTM> (last visited Oct. 21, 2009).

²³⁰ 13 CFR § 121.201, NAICS codes 221111, 221112, 221113, 221119, 221121, 221122, n. 1.

²³¹ See U.S. Census Bureau, American FactFinder, Utilities: Subject Series - Establishment and Firm Size: Summary Statistics by Revenue Size of Firms for the United States: 2007, NAICS code 221122, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_22SSSZ5&prodType=table (last visited February 18, 2016).

²³² See *id.*

²³³ We expect that the same portal, once implemented, will be used to receive geocoded information from price cap carriers.

²³⁴ 5 U.S.C. § 603(c).

and predictable monthly support amounts over the ten years will enhance the ability of these carriers to deploy broadband throughout the term and free them from the administrative burdens associated with doing cost studies to receive high-cost support.²³⁵ Additionally, to provide further flexibility, we adopt even-spaced annual interim milestones over the 10-year term for rate-of-return carriers electing model-based support, and decline to set interim milestones requiring deployment of speeds at or above 25/3 Mbps.²³⁶ By doing so, we minimize deployment burdens by permitting flexibility in design and deployment of broadband networks. The Commission also concludes that rate-of-return carriers receiving model-based support should have some flexibility in their deployment obligations to address unforeseeable challenges to meeting these obligations. Therefore, the Commission permitted rate-of-return carriers to deploy to 95 percent of the required number of locations by the end of the 10-year term.²³⁷

75. In the Report and Order, we also remove a deterrent for rate-of-return carriers to offer standalone broadband service by making technical rule changes to our existing ICLS rules to support the provision of broadband service to consumers in areas with high loop-related costs (including small carriers and those that wish to transfer or acquire parts of exchanges), without regard to whether the loops are also used for traditional voice services.²³⁸ By supporting broadband lines, the Commission removes potential regulatory barriers to taking steps to offer new IP-based services in innovative ways, and provides rate-of-return carriers strategic flexibility in their service offerings.²³⁹

76. The Commission adopts a mechanism to limit operating costs eligible for support under HCLS and CAF BLS to encourage efficient spending by rate-of-return carriers and increase the amount of universal service support available for investment in broadband-capable facilities.²⁴⁰ However, to soften the impact of this expense limitation, the Commission concludes that a transition is appropriate to allow carriers time to adjust their operating expenditures.²⁴¹ The Commission also adopts a capex allowance proposed by the rate-of-return industry associations to help target support to those areas with less broadband deployment so that carriers serving those areas have the opportunity and support to catch up to the average level of broadband deployment in areas served by rate-of-return carriers.²⁴² The Commission also concludes that if any rate-of-return carrier believes that the support it receives is insufficient, it may seek a waiver of the Commission's rules to obtain the flexibility and certainty it needs to continue operating its business.

77. Next, in the Report and Order, the Commission takes steps to prohibit rate-of-return carriers from receiving CAF BLS in areas that are served by a qualifying unsubsidized competitor.²⁴³ However, the Commission limits the reduction in support to only those census blocks that are overlapped in at least 85 percent of their locations.²⁴⁴ The Commission recognized that competitive areas are likely to be lower cost and non-competitive areas are likely to be relatively higher cost, and therefore ensured that rate-of-return carriers subject to this rule may disaggregate their support in areas determined to be served

²³⁵ See *supra* Section II.A.2.

²³⁶ See *id.*

²³⁷ See *id.*

²³⁸ See *supra* Section II.B.2.

²³⁹ See *id.*

²⁴⁰ See *supra* Section II.B.3.

²⁴¹ See *id.*

²⁴² See *supra* Section II.B.4.

²⁴³ See *supra* Section II.B.5.

²⁴⁴ See *id.*

by qualifying competitors by one of several options.²⁴⁵ The Commission provides further flexibility to those rate-of-return carriers affected by this rule by adopting a phased reduction in disaggregated support for competitive areas.²⁴⁶ By permitting this flexibility, the Commission provides these small entities with the ability to make reasoned business decisions to advance their deployment goals.

78. To promote “accountability from companies receiving support to ensure that public investments are used wisely to deliver intended results,”²⁴⁷ the Commission adopts defined deployment obligations that are a condition of the receipt of high-cost funding for those carriers continuing to receive support based on embedded costs.²⁴⁸ To provide rate-of-return carriers with the certainty needed to invest in their networks, the Commission adopted a specific methodology to determine each carrier’s deployment obligation over a defined five-year period, which will be used to monitor carrier performance.²⁴⁹ The Commission recognizes that rate-of-return carriers subject to defined five-year deployment obligations may choose different timelines to meet their deployment obligations and therefore allows carriers the flexibility to choose to meet their obligation at any time during the five-year period.²⁵⁰

79. In modifying its pricing rules, the Commission minimizes the burden on small carriers by deriving the costs for the Consumer Broadband-Only Loop category using existing data and allows NECA to tariff the Consumer Broadband-Only Loop rate for carriers electing model-based support because of the administrative efficiencies of employing a single tariff. The Commission also consolidates the certification that consumer broadband-only loop costs are not being double recovered into an existing certification, thus streamlining the process for small carriers.

80. The Commission also takes action to modify our existing reporting requirements.²⁵¹ The Commission revises ETCs’ annual reporting requirements to align better those requirements with the Commission’s statutory and regulatory objectives.²⁵² To reduce the administrative burden on rate-of-return carriers, the Commission concludes that the public interest would be served by eliminating the requirement to file a narrative update to the five-year plan.²⁵³ Instead, the Commission adopts narrowly tailored reporting requirements regarding the location of new deployment offering service at various speeds, which will better enable the Commission to determine on an annual basis how high-cost support is being used to “improve broadband availability, service quality, and capacity at the smallest geographic area possible.”²⁵⁴ Taken as a whole, these modifications to the reporting requirements for rate-of-return carriers will reduce their administrative burden and provide certainty as to what must be filed and when.

81. In the Order and Order on Reconsideration, we are particularly mindful of the economic impact rate represetation will have on rate-of-return incumbent LECs, many of which are small entities. Accordingly, the Commission takes a number of steps to minimize the economic impact of the new rate of return. As an initial matter, we expand the upper end of the rate of return zone of reasonableness beyond the WACC estimates obtained using financial models based on policy considerations and adopt

²⁴⁵ *See id.*

²⁴⁶ *See id.*

²⁴⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17670-71, para. 11; *see also id.* at 17681, para. 51.

²⁴⁸ *See supra* Section II.B.7.

²⁴⁹ *See id.*

²⁵⁰ *See id.*

²⁵¹ *See supra* Section II.E.2.

²⁵² *See id.*

²⁵³ *See id.*

²⁵⁴ *See* July 2014 GAO High-Cost Report at 31; *See supra* Section II.E.2.

the rate of return from the upper end of this zone.²⁵⁵ In so doing, we attempt to maximize the likelihood that the unitary rate of return is fully compensatory, even for small firms with a relatively high cost of capital. In addition, to help minimize the immediate financial impacts that represcription may impose on small carriers, we adopt, for the first time, a transitional approach to represcription.²⁵⁶ Under this approach, the rate of return is reduced by 25 basis points per year beginning July 1, 2016 until it reaches the represcribed 9.75 percent rate of return.²⁵⁷ Together, these measures are intended to reduce the significant economic impact of the new rate of return on small carriers.

G. Report to Congress

82. The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996.²⁵⁸ In addition, the Commission will send a copy of the Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.²⁵⁹

²⁵⁵ See *supra* Section III.B.5.e.

²⁵⁶ See *supra* Section III.B.6.

²⁵⁷ See *id.*

²⁵⁸ 5 U.S.C. § 801(a)(1)(A).

²⁵⁹ See *id.* § 604(b).

APPENDIX E

The five-year forecast of the total CAF-BLS support for each rate-of-return carrier for the purposes of determining deployment obligations will be based on the assumptions outlined below.

- The first year of the forecast will be 2017.
- If 2015 data is not yet validated, instead use most recently validated data.
- NECA may use current data to assign converted study areas to a group and exclude their data from the weighted average growth rate calculations for the groups to which they are assigned. For this calculation, converted study areas are limited to those study areas which converted in the prior year.
- The forecast will assume that companies that have not yet built out broadband will invest at a higher rate than those who have recently built out their networks. Companies will be sorted by descending ratio of net plant to gross plant based on net plant and gross plant in 2015. For the relevant period (2017 – 2021), the top one third of carriers (those with the highest level of investment currently) will be forecast to invest at the average rate of the bottom third of carriers (the average rate of those with the lowest net plant to gross plant ratios). Conversely, the bottom one third of carriers will be forecast to invest at the average rate of the top one third of carriers. The remaining third (those in the middle) will be forecast to continue investing at the same rate as previously.
- HCLS and BLS will be calculated based on the rules adopted in this Report and Order.
- The \$2 billion budgetary control will be implemented by applying per-line and percent reductions to HCLS and CAF BLS, after accounting for decreasing CAF-ICC funding, based on the rules adopted in this Report and Order.
- The Operating Expense Limits and Capital Budget Allowances will be applied as adopted in this Report and Order.
- The number of voice-only/voice-broadband lines and broadband-only lines for each carrier will be forecast based on the assumption that broadband-only lines (BOLs) will grow at a rate of 5 percent per year for years 2016 and 2017. Therefore, the number of broadband-only lines in a study area in 2017 will be assumed to be the number of broadband-only lines in the study area in 2015 times 1.1025 ($= 1.05 \times 1.05$). Currently, approximately one half of study areas have no broadband-only lines in 2015 and the forecast will assume that such study areas will not have any broadband-only lines through 2017. For 2018 through 2021, the forecast will assume that all study areas will increase the number of broadband-only lines in their service areas. The forecast will assume that 5 percent of each study area's telephone service lines (i.e., voice-only and voice-broadband lines or non-broadband-only lines) in service at the end of the prior year convert to broadband-only lines, annually. Further, to account for line growth/loss over time, each study area's estimated total number of lines (both broadband-only lines and non-broadband-only lines) in a particular year will be multiplied by a growth factor. For each year, the growth factor will be one plus the weighted average growth rate of lines for the industry, raised to the power equal to the number of years after 2017. The forecast will assume a weighted average growth rate of -3 percent, consistent with estimates in NECA's recent submission.¹ NECA estimated that non-broadband-only lines would decrease by 3.25 percent per year (there are currently approximately 3.733 million non-broadband-only lines) and that broadband-only lines would increase by 5 percent per year (there are currently approximately 91,000 broadband-only lines).

In mathematical terms, the number of lines will be calculated based on the following equations:

¹ Letter from Regina McNeil, NECA, to Marlene H. Dortch, Rodger Woock, and Suzanne Yelen, FCC, WC Docket No. 10-90 et al., Att. 1 (filed Dec. 2, 2015).

For 2017:

$$\text{BOL}_{2017} = \text{BOL}_{2015} * 1.1025;$$

$$\text{Non-BOL}_{2017} = \text{non-BOL}_{2015} * (1 - .0325)^2$$

For 2018 - 2021:

$$\text{BOL}_{\text{Year}} = (.05 * \text{non-BOL}_{\text{Year-1}} + \text{BOL}_{\text{Year-1}}) * (1 - .03)$$

$$\text{Non-BOL}_{\text{Year}} = (.95 * \text{non-BOL}_{\text{Year-1}}) * (1 - .0325)$$

APPENDIX F

*List of Staff Report Commenters and Reply Commenters***Commenter**

Alaska Rural Coalition
 CoBank, ACB
 Eastern Rural Telecom Association
 GVNW Consulting, Inc.
 ICORE, Inc.
 John Staurulakis, Inc.
 Moss Adams LLP, 3 Rivers Telephone Cooperative, Accipiter
 Communications, Alaska Telephone Company, Alma
 Communications Company, ATC Communications, Bettles
 Telephone Company, Blackfoot Telephone Cooperative, Brazos
 Telephone Cooperative, Calaveras Telephone Company, Cambridge
 Telephone Company (ID), Cambridge Telephone Company (NE),
 Canby Telephone Association, Central Montana Telephone
 Company, Clarkfork Telephone Company, Central Texas Telephone
 Cooperative, Clear Creek Communications, Custer Telephone
 Cooperative, Dakota Central Telecommunications, Delhi Telephone
 Company, Direct Communications, DuBois Telephone Company,
 Direct Communications, DuBois Telephone Exchange, Ducor
 Telephone Company, Eagle Telephone System, East Otter Tail
 Telephone Company, Emery Telecom, Endeavor Communications,
 ENMR Telephone Cooperative, Farmers Mutual Telephone
 Cooperative, Filer Mutual Telephone Company, Fremont Telecom,
 Granite State Telephone Company, Guadalupe Valley Telephone
 Cooperative, Interbel Telephone Cooperative, Kallona Cooperative
 Telephone Company, LaValle Telephone Cooperative, Logan
 Telephone Cooperative, Mashell Telecom, Midvale Telephone
 Exchange, Missouri Valley Communications, Moapa Valley
 Telephone Company, Molalla Communications, Mountain View
 Telephone, Company, Nemont Telephone Cooperative, North
 Country Telephone Company, Northwestern Indiana Telephone
 Company, Northern Telephone Osakis telephone Company, Penasco
 Valley Telephone Cooperative, Pend Oreille Telephone Company,
 Pigeon Telephone Company, Pinnacles Telephone Company, Prairie
 Grove Telephone Company, Project Telephone Company, Project
 Mutual Telephone Cooperative, Range Telephone Cooperative,
 Richland Grant Telephone Cooperative, Rochester Telephone
 Company, RT Communications, Rural Telephone Company, Santa
 Rosa Telephone Cooperative, SCIO Mutual Telephone Association,
 South Arkansas Telephone Company, South Central
 Communications, Springport Telephone Company, Strata Networks,
 The Peoples Telephone Company of Bigfork, The Toledo Telephone
 Company, Triangle Telephone Cooperative, Twin Valley-Ulen
 Telephone Company, Valley Telephone Cooperative (AZ/NM),
 Volcano Telephone Company, Wheat State Telephone Company,
 Yelcot Telephone Company
 National Association of State Utility Consumer Advocates
 National Cable & Telecommunications Association

Abbreviation

ARC
 CoBank
 ERTA
 GVNW
 ICORE
 JSI
 Moss Adams

NASUCA
 NCTA

National Congress of American Indians	NCAI
National Exchange Carrier Association, Inc., NTCA—The Rural Broadband Association, USTelecom—The Broadband Association, Eastern Rural Telecom Association, and Western Telecom Alliance	Rural Associations
National Tribal Telecommunications Association	NTTA
Rural Telephone Finance Cooperative	RTFC
Rural Broadband Alliance, Small Company Coalition, Alexicon Companies	Rural Company Group
Washington Independent Telecommunications Association, Oregon Telecommunications Association	Western Associations
<u>Reply Commenter</u>	<u>Abbreviation</u>
Ad Hoc Telecommunications Users Committee	Ad Hoc
AT&T	AT&T
Fred Williamson & Associates	FW&A
Gila River Indian Community and Gila River Telecommunications, Inc.	Gila River
GVNW Consulting, Inc.	GVNW
Mescalero Apache Telecom, Inc.	MATI
National Exchange Carrier Association, Inc., NTCA—The Rural NECA et al., Broadband Association, USTelecom—The Broadband Association, Eastern Rural Telecom Association, and Western Telecom Alliance	Rural Associations
Alaska Telephone Association, California Communications State Associations, Association, Rural Iowa Independent Telephone Association, Louisiana Telecommunications Association, Colorado Telecommunications Association, Illinois Independent Telephone Association, Indiana Exchange Carrier Association, Idaho Telecom Alliance, Iowa Telecommunications Association, Telecommunications Association of Maine, Minnesota Telecom Alliance, Missouri Small, Telephone Company Group, Montana Independent Telecommunications Systems, Montana Telecommunications Association, Nevada Telecommunications Association, Telephone Association of New England, New Hampshire Telephone Association, Oklahoma Telephone Association, South Dakota Telecommunications Association, Tennessee Telecommunications Association, Texas Statewide Telephone Cooperative, Inc., Telephone Association of Vermont, Washington Independent Telecommunications Association, Wisconsin, State Telecommunications Association, and Wyoming Telecom Association	State Associations
TCA, Inc.	TCA

APPENDIX G

Interest Rate Changes Between March 2013 and September 2015

Date	5-Yr. T Rate		7-Yr. T Rate		10-Yr. T Rate		20-Yr. T Rate		30-Yr. T Rate		Moody's Aaa Corp. Rate		Moody's Baa Corp. Rate	
	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate
(Yr./Mo.)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)
2012-10	0.71	---	1.15	---	1.75	---	2.51	---	2.9	---	3.47	---	4.58	---
2012-11	0.67	---	1.08	---	1.65	---	2.39	---	2.8	---	3.5	---	4.51	---
2012-12	0.7	---	1.13	---	1.72	---	2.47	---	2.88	---	3.65	---	4.63	---
2013-01	0.81	---	1.3	---	1.91	---	2.68	---	3.08	---	3.8	---	4.73	---
2013-02	0.85	---	1.35	---	1.98	---	2.78	---	3.17	---	3.9	---	4.85	---
2013-03	0.82	---	1.32	---	1.96	---	2.78	---	3.16	---	3.93	---	4.85	---
6-Mo. Avg.	0.76	---	1.22	---	1.83	---	2.60	---	3.00	---	3.71	---	4.69	---
2013-04	0.71	-5	1.15	-7	1.76	-7	2.55	-5	2.93	-7	3.73	2	4.59	-10
2013-05	0.84	8	1.31	9	1.93	10	2.73	13	3.11	11	3.89	18	4.73	4
2013-06	1.2	44	1.71	49	2.3	47	3.07	47	3.4	40	4.27	56	5.19	50
2013-07	1.4	64	1.99	77	2.58	75	3.31	71	3.61	61	4.34	63	5.32	63
2013-08	1.52	76	2.15	93	2.74	91	3.49	89	3.76	76	4.54	83	5.42	73
2013-09	1.6	84	2.22	100	2.81	98	3.53	93	3.79	79	4.64	93	5.47	78
2013-10	1.37	61	1.99	77	2.62	79	3.38	78	3.68	68	4.53	82	5.31	62
2013-11	1.37	61	2.07	85	2.72	89	3.5	90	3.8	80	4.63	92	5.38	69
2013-12	1.58	82	2.29	107	2.9	107	3.63	103	3.89	89	4.62	91	5.38	69
2014-01	1.65	89	2.29	107	2.86	103	3.52	92	3.77	77	4.49	78	5.19	50
2014-02	1.52	76	2.15	93	2.71	88	3.38	78	3.66	66	4.45	74	5.1	41
2014-03	1.64	88	2.23	101	2.72	89	3.35	75	3.62	62	4.38	67	5.06	37
2014-04	1.7	94	2.27	105	2.71	88	3.27	67	3.52	52	4.24	53	4.9	21
2014-05	1.59	83	2.12	90	2.56	73	3.12	52	3.39	39	4.16	45	4.76	7
2014-06	1.68	92	2.19	97	2.6	77	3.15	55	3.42	42	4.25	54	4.8	11
2014-07	1.7	94	2.17	95	2.54	71	3.07	47	3.33	33	4.16	45	4.73	4
2014-08	1.63	87	2.08	86	2.42	59	2.94	34	3.2	20	4.08	37	4.69	0
2014-09	1.77	101	2.22	100	2.53	70	3.01	41	3.26	26	4.11	40	4.8	11
2014-10	1.55	79	1.98	76	2.3	47	2.77	17	3.04	4	3.92	21	4.69	0
2014-11	1.62	86	2.03	81	2.33	50	2.76	16	3.04	4	3.92	21	4.79	10
2014-12	1.64	88	1.98	76	2.21	38	2.55	-5	2.83	-17	3.79	8	4.74	5
2015-01	1.37	61	1.67	45	1.88	5	2.2	-40	2.46	-54	3.46	-25	4.45	-24
2015-02	1.47	71	1.79	57	1.98	15	2.34	-26	2.57	-43	3.61	-10	4.51	-18
2015-03	1.52	76	1.84	62	2.04	21	2.41	-19	2.63	-37	3.64	-7	4.54	-15
2015-04	1.35	59	1.69	47	1.94	11	2.33	-27	2.59	-41	3.52	-19	4.48	-21
2015-05	1.54	78	1.93	71	2.2	37	2.69	9	2.96	-4	3.98	27	4.89	20
2015-06	1.68	92	2.1	88	2.36	53	2.85	25	3.11	11	4.19	48	5.13	44
2015-07	1.63	87	2.04	82	2.32	49	2.77	17	3.07	7	4.15	44	5.2	51
2015-08	1.54	78	1.91	69	2.17	34	2.55	-5	2.86	-14	4.04	33	5.19	50
2015-09	1.49	73	1.88	66	2.17	34	2.62	2	2.95	-5	4.07	36	5.34	65
Max.	---	101	---	107	---	107	---	103	---	89	---	93	---	78
Min.	---	-5	---	-7	---	-7	---	-40	---	-54	---	-25	---	-24
9/15 - 3/13	---	67	---	56	---	21	---	-16	---	-21	---	14	---	49
Avg. Diff.	---	74	---	76	---	57	---	36	---	24	---	42	---	27

Source: Board of Governors of the Federal Reserve, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm> (last visited Nov. 1, 2015).

Notes:

“BP” refers to Basis Points.

“9/15 – 3/13” refers to the difference between the Monthly Average Rate for 2013-03 and 2015-09.

“Avg. Diff.” refers to the average difference between the Monthly Average Rate and the 6-Month Average Rate.

APPENDIX H

Interest Rate Changes Between December 2012 and September 2015

Date (Yr./Mo.)	5-Yr. T Rate		7-Yr. T Rate		10-Yr. T Rate		20-Yr. T Rate		30-Yr. T Rate		Moody's Aaa Corp. Rate		Moody's Baa Corp. Rate	
	Mo. Avg. Rate	Mo. Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Avg. Rate Minus 6-Mo. Avg. Rate	Mo. Avg. Rate	Avg. Rate Minus 6-Mo. Avg. Rate
	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)	(%)	(BP)
2012-07	0.62	---	0.98	---	1.53	---	2.22	---	2.59	---	3.4	---	4.87	---
2012-08	0.71	---	1.14	---	1.68	---	2.4	---	2.77	---	3.48	---	4.91	---
2012-09	0.67	---	1.12	---	1.72	---	2.49	---	2.88	---	3.49	---	4.84	---
2012-10	0.71	---	1.15	---	1.75	---	2.51	---	2.9	---	3.47	---	4.58	---
2012-11	0.67	---	1.08	---	1.65	---	2.39	---	2.8	---	3.5	---	4.51	---
2012-12	0.7	---	1.13	---	1.72	---	2.47	---	2.88	---	3.65	---	4.63	---
6-Mo. Avg.	0.68	---	1.1	---	1.68	---	2.41	---	2.80	---	3.50	---	4.72	---
2013-01	0.81	13	1.3	20	1.91	24	2.68	27	3.08	28	3.8	30	4.73	1
2013-02	0.85	17	1.35	25	1.98	31	2.78	37	3.17	37	3.9	40	4.85	13
2013-03	0.82	14	1.32	22	1.96	29	2.78	37	3.16	36	3.93	43	4.85	13
2013-04	0.71	3	1.15	5	1.76	9	2.55	14	2.93	13	3.73	23	4.59	-13
2013-05	0.84	16	1.31	21	1.93	26	2.73	32	3.11	31	3.89	39	4.73	1
2013-06	1.2	52	1.71	61	2.3	63	3.07	66	3.4	60	4.27	77	5.19	47
2013-07	1.4	72	1.99	89	2.58	91	3.31	90	3.61	81	4.34	84	5.32	60
2013-08	1.52	84	2.15	105	2.74	107	3.49	108	3.76	96	4.54	104	5.42	70
2013-09	1.6	92	2.22	112	2.81	114	3.53	112	3.79	99	4.64	114	5.47	75
2013-10	1.37	69	1.99	89	2.62	95	3.38	97	3.68	88	4.53	103	5.31	59
2013-11	1.37	69	2.07	97	2.72	105	3.5	109	3.8	100	4.63	113	5.38	66
2013-12	1.58	90	2.29	119	2.9	123	3.63	122	3.89	109	4.62	112	5.38	66
2014-01	1.65	97	2.29	119	2.86	119	3.52	111	3.77	97	4.49	99	5.19	47
2014-02	1.52	84	2.15	105	2.71	104	3.38	97	3.66	86	4.45	95	5.1	38
2014-03	1.64	96	2.23	113	2.72	105	3.35	94	3.62	82	4.38	88	5.06	34
2014-04	1.7	102	2.27	117	2.71	104	3.27	86	3.52	72	4.24	74	4.9	18
2014-05	1.59	91	2.12	102	2.56	89	3.12	71	3.39	59	4.16	66	4.76	4
2014-06	1.68	100	2.19	109	2.6	93	3.15	74	3.42	62	4.25	75	4.8	8
2014-07	1.7	102	2.17	107	2.54	87	3.07	66	3.33	53	4.16	66	4.73	1
2014-08	1.63	95	2.08	98	2.42	75	2.94	53	3.2	40	4.08	58	4.69	-3
2014-09	1.77	109	2.22	112	2.53	86	3.01	60	3.26	46	4.11	61	4.8	8
2014-10	1.55	87	1.98	88	2.3	63	2.77	36	3.04	24	3.92	42	4.69	-3
2014-11	1.62	94	2.03	93	2.33	66	2.76	35	3.04	24	3.92	42	4.79	7
2014-12	1.64	96	1.98	88	2.21	54	2.55	14	2.83	3	3.79	29	4.74	2
2015-01	1.37	69	1.67	57	1.88	21	2.2	-21	2.46	-34	3.46	-4	4.45	-27
2015-02	1.47	79	1.79	69	1.98	31	2.34	-7	2.57	-23	3.61	11	4.51	-21
2015-03	1.52	84	1.84	74	2.04	37	2.41	0	2.63	-17	3.64	14	4.54	-18
2015-04	1.35	67	1.69	59	1.94	27	2.33	-8	2.59	-21	3.52	2	4.48	-24
2015-05	1.54	86	1.93	83	2.2	53	2.69	28	2.96	16	3.98	48	4.89	17
2015-06	1.68	100	2.1	100	2.36	69	2.85	44	3.11	31	4.19	69	5.13	41
2015-07	1.63	95	2.04	94	2.32	65	2.77	36	3.07	27	4.15	65	5.2	48
2015-08	1.54	86	1.91	81	2.17	50	2.55	14	2.86	6	4.04	54	5.19	47
2015-09	1.49	81	1.88	78	2.17	50	2.62	21	2.95	15	4.07	57	5.34	62
Max.	---	109	---	119	---	123	---	122	---	109	---	114	---	75
Min.	---	3	---	5	---	9	---	-21	---	-34	---	-4	---	-27
9/15 - 12/12	---	79	---	75	---	45	---	15	---	7	---	42	---	71
Avg. Diff.	---	75	---	82	---	68	---	53	---	43	---	61	---	22

Source: Board of Governors of the Federal Reserve, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm> (last visited Nov. 1, 2015).

Notes:

“BP” refers to Basis Points; 100 Basis Points equals 1 percentage point.

“9/15 – 12/12” refers to the difference between the Monthly Average Rate for 2012-12 and 2015-09.

“Avg. Diff.” refers to the average difference between the Monthly Average Rate and the 6-Month Average Rate.

APPENDIX I

Embedded Cost of Debt and Capital Structure Estimates

Company	Total Debt As of 12/31/2011 (Book Value)	Total Debt As of 12/31/2012 (Book Value)	2012 Total Interest Expense	2012 Embedded Cost of Debt	Common Equity As of 12/31/2012 (Market Value)	Debt Ratio	Equity Ratio
Hickory Tech Corp.	\$ 120,235,000	\$ 136,781,000	\$ 5,749,000	4.47%	\$ 131,541,145	50.98%	49.02%
Telephone and Data Systems, Inc.	\$ 1,531,366,000	\$ 1,722,804,000	\$ 86,745,000	5.33%	\$ 2,391,806,340	41.87%	58.13%
New Ulm Telecom Inc.	\$ 43,508,000	\$ 46,607,000	\$ 2,227,000	4.94%	\$ 30,623,508	60.35%	39.65%
Shenandoah Telecommunications Company	\$ 180,575,000	\$ 232,177,000	\$ 7,850,000	3.80%	\$ 366,859,904	38.76%	61.24%
Consolidated Communications Holding, Inc.	\$ 884,711,000	\$ 1,217,844,000	\$ 72,604,000	6.91%	\$ 634,458,948	65.75%	34.25%
Lumos Networks Corp.	\$ 326,576,000	\$ 312,225,000	\$ 11,921,000	3.73%	\$ 215,409,960	59.17%	40.83%
Aleeva	\$ 6,739,000	\$ 14,095,000	\$ 415,000	3.98%	\$ 60,122,310	18.99%	81.01%
Windstream Corporation	\$ 9,150,400,000	\$ 8,996,500,000	\$ 625,100,000	6.89%	\$ 4,870,296,000	64.88%	35.12%
Alaska Communications Systems Group, Inc.	\$ 569,554,000	\$ 555,400,000	\$ 39,570,000	7.03%	\$ 88,784,100	86.22%	13.78%
Hawaiian Telcom Holdco, Inc.	\$ 300,000,000	\$ 295,410,000	\$ 22,183,000	7.45%	\$ 200,691,992	59.55%	40.45%
Frontier Communications Corporation	\$ 8,318,408,000	\$ 8,942,497,000	\$ 687,985,000	7.97%	\$ 4,273,194,800	67.67%	32.33%
Fairpoint Communications, Inc.	\$ 1,003,942,000	\$ 959,690,000	\$ 67,610,000	6.89%	\$ 208,902,894	82.12%	17.88%
Cincinnati Bell	\$ 2,533,600,000	\$ 2,689,400,000	\$ 218,900,000	8.38%	\$ 1,109,528,531	70.79%	29.21%
Century Link	\$ 21,836,000,000	\$ 20,605,000,000	\$ 1,319,000,000	6.22%	\$ 24,475,740,960	45.71%	54.29%
Verizon	\$ 55,152,000,000	\$ 51,987,000,000	\$ 2,571,000,000	4.80%	\$ 123,690,285,779	29.59%	70.41%
AT&T	\$ 64,753,000,000	\$ 69,844,000,000	\$ 3,444,000,000	5.12%	\$ 188,148,817,461	27.07%	72.93%
Averages				5.87%		54.34%	45.66%

Source: Companies' SEC Form 10-Ks for the year ending December 31, 2012. See SEC Form 10-K, EDGAR Company Filings, SEC, <http://www.sec.gov/edgar/searchedgar/companysearch.html>.

Notes on Calculations:

2012 Embedded Cost of Debt = 2012 Total Interest Expense / [(Total Debt As of 12/31/2011 + Total Debt As of 12/31/2012) / 2]

Debt Ratio = Total Debt As of 12/31/2012 / (Total Debt As of 12/31/2012 + Common Equity As of 12/31/2012)

Equity Ratio = Common Equity As of 12/31/2012 / (Total Debt As of 12/31/2012 + Common Equity As of 12/31/2012)

APPENDIX J

CAPM Cost of Equity and WACC Estimates

Company	Beta	Cost of Equity Estimate (K _E)			WACC Estimate		
		MRP = 5.88%	MRP = 6.21%	MRP = 10.54%	MRP = 5.88%	MRP = 6.21%	MRP = 10.54%
Hickory Tech Corp.	0.78	7.41%	7.67%	11.04%	5.91%	6.04%	7.69%
Telephone and Data Systems, Inc.	1.08	9.20%	9.56%	14.25%	7.58%	7.79%	10.51%
New Ulm Telecom Inc.	0.50	5.74%	5.90%	8.05%	5.26%	5.32%	6.17%
Shenandoah Telecommunications Company	1.21	9.92%	10.32%	15.54%	7.55%	7.79%	10.99%
Consolidated Communications Holding, Inc.	1.02	8.82%	9.16%	13.57%	7.56%	7.68%	9.19%
Lumos Networks Corp.	0.82	7.64%	7.91%	11.45%	5.33%	5.44%	6.88%
Alteva	0.52	5.91%	6.09%	8.36%	5.55%	5.69%	7.53%
Windstream Corporation	0.94	8.37%	8.68%	12.76%	7.41%	7.52%	8.95%
Alaska Communications Systems Group, Inc.	0.84	7.75%	8.03%	11.66%	7.13%	7.17%	7.67%
Hawaiian Telcom Holdco, Inc.	0.74	7.21%	7.45%	10.68%	7.35%	7.45%	8.76%
Frontier Communications Corporation	0.96	8.47%	8.79%	12.94%	8.13%	8.23%	9.58%
Fairpoint Communications, Inc.	1.16	9.68%	10.06%	15.11%	7.39%	7.45%	8.36%
Cincinnati Bell	1.30	10.50%	10.93%	16.58%	9.00%	9.13%	10.78%
Century Link	0.80	7.54%	7.80%	11.27%	6.93%	7.08%	8.96%
Verizon	0.83	7.69%	7.97%	11.55%	6.84%	7.03%	9.55%
AT&T	0.81	7.60%	7.87%	11.39%	6.93%	7.13%	9.69%
Average with New Ulm	---	8.09%	8.39%	12.26%	6.99%	7.12%	8.83%
Average without New Ulm	---	8.25%	8.55%	12.54%	7.11%	7.24%	9.01%
Average with Alternative New Ulm K _E	---	8.20%	8.51%	12.50%	7.04%	7.17%	8.92%
Ranges			8.39%	12.54%		7.12%	9.01%

Notes:

$$K_E = R_F + (\text{Beta} * \text{MRP})$$

R_F = risk-free interest rate estimate, 2.83%; R_F is based the average of: (1) the March 2013 average 10-year Treasury rate, 1.96%; and (2) the average 10-year forecast for the 10-year Treasury rate produced by the Survey of Professional Forecasters for the first quarter of 2013, 3.70%. Source: Board of Governors of the Federal Reserve System, Selected Interest Rates (Monthly), <http://www.federalreserve.gov/releases/h15/data.htm> (last visited Nov. 1, 2015); Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia, Table 7 (rel. Feb. 15, 2013), <https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters>.

Betas are the weekly, adjusted betas developed by Commission staff. See *Prescribing the Authorized Rate of Return: Analysis of Methods for Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 10-90, Wireline Competition Bureau Staff Report, 28 FCC Rcd 7123, 7187-88, Apps. F & G.

MRP = market risk premium estimate; MRP values are based on Aswath Damodaran, Professor of Finance at the Stern School of Business at New York University, Annual Returns on Stock, T.Bonds and T.Bills: 1928 - Current, http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html (last visited Apr. 15, 2013).

To estimate the “Average with New Ulm K_E,” we use the CAPM estimates for the 15 proxies and set the cost of equity (K_E) for New Ulm (Alternative New Ulm K_E) equal to its cost of debt (K_D) estimate plus the average difference between the K_D and K_E estimates for the 15 proxies, so New Ulm K_E = New Ulm K_D + (Average K_E – Average K_D).

APPENDIX K

DCF Model Cost of Equity and WACC Estimates

Company	Closing Price Per Share (payment on or before 3/26/2013) (P_0)	Annualized Dividend Per Share (payment on or before 3/26/2013) (D_0)	Yahoo! Finance 5-Yr. "g"	CNN Money 5-Yr. "g"	Reuters Long-Term "g"	Zacks 5-Yr. "g"	Midpoint g (\hat{g})	Annual Dividends Per Share Period 1 (D_1)	D_1/P_0	Cost of Equity Estimate (K_E)	WACC Estimate
Hickory Tech Corp.	\$ 10.24	\$ 0.58	3.80%	12.00%	NA	NA	7.90%	\$ 0.63	6.11%	14.01%	9.15%
Telephone and Data Systems, Inc.	\$ 21.12	\$ 0.51	4.00%	4.00%	NA	4.00%	4.00%	\$ 0.53	2.52%	6.52%	6.02%
Shenandoah Telecommunications Company	\$ 15.36	\$ 0.33	15.00%	13.00%	NA	NA	14.00%	\$ 0.38	2.45%	16.45%	11.55%
Consolidated Communications Holding, Inc.	\$ 17.79	\$ 1.55	2.00%	2.00%	2.00%	2.00%	2.00%	\$ 1.58	8.88%	10.88%	8.27%
Lumos Networks Corp.	\$ 13.01	\$ 0.56	3.00%	3.00%	NA	3.00%	3.00%	\$ 0.58	4.43%	7.43%	5.24%
Windstream Corporation	\$ 8.14	\$ 1.00	-11.25%	-2.00%	-6.83%	1.00%	-5.13%	\$ 0.95	11.66%	6.53%	6.76%
Alaska Communications Systems Group, Inc.	\$ 1.62	\$ 0.20	-10.00%	-10.00%	NA	NA	-10.00%	\$ 0.18	11.11%	1.11%	6.22%
Frontier Communications Corporation	\$ 3.93	\$ 0.40	6.00%	1.50%	2.33%	4.50%	3.75%	\$ 0.42	10.56%	14.31%	10.02%
Century Link	\$ 35.20	\$ 2.16	0.55%	0.60%	1.37%	3.70%	2.13%	\$ 2.21	6.27%	8.39%	7.40%
Verizon	\$ 49.48	\$ 2.06	6.33%	10.00%	5.75%	7.30%	7.88%	\$ 2.22	4.49%	12.37%	10.13%
AT&T	\$ 36.74	\$ 1.80	5.50%	5.94%	5.80%	5.80%	5.72%	\$ 1.90	5.18%	10.90%	9.33%
Average with ACS & Windstream										9.90%	8.19%
Average without ACS & Windstream										11.25%	8.57%
Average with ACS & Windstream $K_E = K_D$										10.47%	8.28%
Average with Alternative ACS & Windstream K_E										11.54%	8.54%
Ranges										10.47% - 11.54%	8.28% - 8.57%

Formulas:

$$D_1 = (1 + \hat{g}) * D_0$$

$$K_E = (D_1/P_0) + \hat{g}$$

Notes:

P_0 and D_0 data are obtained from: Yahoo! Finance, Historical Prices, <http://finance.yahoo.com> (last visited Mar. 27, 2013).

g = growth rate per share obtained from: Yahoo! Finance, Analysts Estimates, Next 5 Years (per annum), <http://finance.yahoo.com> (last visited Mar. 27, 2013); CNN Money, Quote, Growth & Valuation, Earnings growth (next 5 years), <http://money.cnn.com> (last visited Mar. 27, 2013); Reuters, Earnings (per share) Mean LT Growth Rates (%), <http://www.reuters.com/finance> (last visited Mar. 27, 2013); and Zacks, Detailed Estimates, Expected Earnings Growth, <http://www.zacks.com> (last visited Mar. 27, 2013); "NA" means that "g" is not available for the carrier from the source noted at the top of the table.

Average with ACS & Windstream $K_E = K_D$: to estimate the ACS K_E and Windstream K_E , we set their K_E equal to their cost of debt (K_D).

Average with Alternative ACS & Windstream K_E : we estimate the ACS K_E and Windstream K_E by adding the difference between the average K_E and the average K_D for the other nine firms to the K_D estimate for Windstream and ACS, so for these two carriers in this estimation, $K_E = K_D + (\text{Average } K_E - \text{Average } K_D)$.

**STATEMENT OF
CHAIRMAN TOM WHEELER**

Re: *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Developing a Unified Inter-carrier Compensation Regime*, CC Docket No. 01-92.

Our nation's digital divide is both a fiscal ability to pay and a physical ability to deploy challenge. Thirty-nine percent of rural Americans – 23 million people – lack access to service that meets the Commission's 25 Mbps/3 Mbps benchmark for advanced telecommunications capability. By contrast, only 4 percent of Americans in urban areas lack broadband access at these speeds. Twenty-five percent of rural Americans lack access to 10 Mbps/1 Mbps fixed broadband services, compared to 2 percent of urban Americans. And, one in five rural Americans today remains unconnected to fixed Internet access service at 4 Mbps/1 Mbps.

This Commission has consistently promoted competition as the most effective tool for driving network investment, but there are plenty of rural areas where the incentives to compete just aren't there. Local demand will not support the deployment of robust, modern, world-class communications in these areas.

The Commission's universal service program is one of the most important tools at our disposal to spur broadband deployment in unserved rural areas, maintain existing broadband service in high-cost areas, and ensure that consumers and businesses in rural America have the same online opportunities as their urban and suburban counterparts.

We have already worked to update the universal service high-cost program to ensure that we are delivering robust voice and broadband experiences to rural areas served by the larger carriers and providing increased certainty and predictability for carriers and a climate for increased broadband expansion, all within the confines of our finite Connect America budget.

It's time we modernized universal service support for rate-of-return carriers to better reflect today's marketplace and technology. More than 4 million Americans live in high-cost areas served by these small, rural providers. These areas are not only more costly to serve than urban areas, they often are more costly to serve compared to other rural areas. As we modernize our universal service programs, we cannot leave these rural Americans—too many of whom remain unconnected—behind.

For the past several months, Commissioners Clyburn, O'Rielly, and I have worked together on ways to expand rural broadband deployment by modernizing the USF high-cost support program for rate-of-return carriers to fulfill our commitment to standalone broadband reform. This bipartisan effort was aided by the rate-of-return carriers themselves. Working through their trade associations, they engaged with the three of us in a productive manner. We are pleased that NTCA and USTelecom have supported the result.

Today's Order sets forth a package of reforms to address rate-of-return issues that are fundamentally intertwined—the need to modernize the program to provide support for stand-alone broadband service; the need to improve incentives for broadband investment to connect unserved rural Americans; and the need to strengthen the rate-of-return system to provide certainty and stability for years to come.

These reforms will help to ensure that federal universal service funds are spent wisely, for their intended purpose, and take concrete steps to bring broadband to those rural Americans who remain unserved today.

The Order creates an *entirely voluntary* path for rate-of-return carriers that prefer the predictability of defined support amounts over a ten-year term. Similar to the approach that has successfully spurred deployment by larger “price-cap” carriers, this model-based support comes with defined milestones for efficient, accountable deployment. This model-based option has been actively

sought by some rate-of-return carriers and reflects significant updates and carrier-submitted data from the rate-of-return community.

For carriers who choose to continue receiving support based on traditional rate-of-return principles, the Order provides support for standalone broadband lines, gives more certainty to carriers, increases fiscally responsible management of the fund, and ensures that a reasonable portion of support is spent on new buildout to connect those that remain unserved.

To limit the universal service fund's burden on ratepayers, the Order adopts budget control mechanisms to ensure that rate-of-return carriers collectively stay within the established rate-of-return budget. Notably, the Order reflects the shared principle embodied in the "Walden Rule," that we should not use ratepayer funds to support service in an area that is served by an unsubsidized voice and broadband provider. And the Order lowers the authorized rate of return for incumbent carriers to better reflect current financial market conditions.

Finally, a Further Notice included with the Order seeks comment on additional reforms to guard against waste. We must protect the fiscal integrity of the program.

While the Order does not act on an Alaska-specific proposal by a group of Alaska carriers, I believe a framework tailored to the unique operating conditions and challenges faced by those serving Alaska merits serious consideration. Commission staff are actively reviewing the specific solutions that have been proposed, and I have committed to Congress that the Commission will take action to address this important issue in the second quarter of this year.

I have also committed to have a proposal dealing with broadband deployment to America's Tribal areas before the end of the year. The Further Notice seeks comment on measures to promote broadband for rate-of-return carriers serving Tribal lands that are lacking broadband service. Broadband technology is critical for Tribal communities to participate in the 21st century economy. And I personally have seen the lack of communications services and infrastructure across Indian Country. We can, and will, do better.

Thanks to months of sustained bipartisan cooperation, the Commission is acting today to significantly expand rural broadband deployment and open new opportunities for families across America. I am grateful to my colleagues on the Commission for their partnership in this endeavor. Special thanks are due to the Commission staff who have been working for years to modernize all of our universal service programs for the Internet age. In particular, thank you to our Wireline Competition Bureau team, led by Matt DelNero, Carol Matthey, Suzanne Yelen, and Deena Shetler, for their tireless efforts.

**STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN**

Re: *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

A system that penalizes providers when customers subscribe only to broadband is in tension with the directives in section 254 of the statute and our national priorities is indisputably past due for a total overhaul. Today we correct this with simple, significant fixes to our existing mechanisms that provide support to carriers when their customers subscribe to standalone broadband. As significant as these changes are, what makes me most proud is that we did not just stop there. We are also establishing a blueprint to connect unserved households and modernize the Connect America Fund to ensure that rate-of-return carriers use finite resources as efficiently as possible.

The reforms we adopt today are a win-win not only for consumers in rural areas that have been waiting patiently for broadband, but also for consumers who contribute to the fund. This is especially true on Tribal lands and I thank the Chairman for committing to move forward to address the acute deployment disparities on Tribal lands by the end of the year. It includes cost controls and mechanisms that promote efficiency as opposed to rewarding waste. And while there were things I would have done differently, compromises made possible significant and positive reforms.

The FCC has a duty to ensure that every dollar of federal universal service fund support is necessary but not excessive. The fund dedicates approximately \$2 billion to rate of return carriers that serve 3.8 million lines, or, on average, over \$500 per line per year with some areas receiving more than \$3,000 per line every year.¹ Today, however, some funding is being used in some areas to distort the market by giving subsidies even when another provider that does not receive subsidies is offering a competing service in the same area. This creates an unequal, unlevel playing field in competitive markets, which is not the purpose of universal service nor is it what consumers who contribute to the universal service fund should be supporting. Today, we go a long way in addressing this distortion by creating a process to disaggregate support in census blocks where a competing provider serves 85 percent or more of the census block.

The Order also adopts limits on operating expenses and seeks comment on revising our rules so that universal service no longer pays for things like art work and other items of aesthetic value that are unrelated to the provision of service, such as vehicles for personal use, corporate aircrafts and boats, housing allowances and childcare. While companies are free, of course, to pay for such expenses, I firmly believe that such expenses unrelated to the provision of service should not be subsidized by our nation's hard working consumers through the universal service fund. Indeed, it is distressing our rules have permitted using support for such personal uses for so long.

That said, I recognize that most rate-of-return companies operate efficiently and are extremely careful with each dollar spent and work diligently to deploy broadband as quickly as possible to their communities. We need to ensure our rules are revised so that all carriers are playing by the same rules and are prohibited from using federal universal service funds, paid by hardworking ratepayers, for services and items that have absolutely nothing to do with the provisioning of telecommunications services.

¹ While the Commission adopted a cap of \$3000 per year per line in 2011, this limitation does not include support from Connect America Fund-Intercarrier Compensation. See 47 CFR § 54.302(a). As a result, some carriers continue to receive more than \$3000 per line per year.

I want to thank Chairman Wheeler and Commissioner O’Rielly for working with me in a very collaborative and inclusive manner. The consumers of our nation, I believe, would be proud of the process and I trust that it will serve as the gold standard for additional, much needed reforms.

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

For too long rural consumers seeking to get standalone broadband service have been told that in order to do so they would have to pay for a voice line in addition to broadband—or worse, that such an offering is simply not available. Sensing that they were getting the raw end of the bargain, rural consumers have complained to their providers, complained to the Better Business Bureau, and complained to this Commission.

Today we heed their call. This Order takes steps to correct the strange confluence of history and law that produced this situation. As a result, rural consumers finally will be able to order standalone broadband service—just like their urban counterparts. I fully support this aspect of today’s decision. In fact, I believe this result is overdue.

This Order also updates other aspects of universal service policy. It provides rate-of-return carriers serving rural communities a new option to receive model-based universal service funding, puts in place additional measures to keep our universal service program fiscally accountable, and updates the rate of return used in our program to better reflect modern commercial reality. I support these changes, too.

For rate-of-return carriers, these changes come not a moment too soon. These are companies that are deeply invested in rural America, but they face daunting challenges bringing high-speed services to some of the most remote and difficult to serve areas in the country. So we need to monitor the reforms we put in place in order to ensure that they result in real progress and bring broadband to hard-to-reach places. We also need to make sure that the places left out of the reforms in this Order—including Alaska and Tribal Lands—are not forgotten. The connectivity needs in these locations are profound. We owe it to their residents to act as quickly as possible.

Finally, it is important to recognize that over time our high-cost universal service policies have grown increasingly complex. Our work here is no exception. I worry that this complexity can deny carriers dependent on the universal service system the certainty they need to confidently invest in their network infrastructure. Nonetheless, today’s Order represents a step forward—especially with respect to standalone broadband. But looking ahead I am hopeful that when new opportunities arise to simplify our universal service rules in a manner that is good for rural consumers and bound to inspire investment—we will seize them.

STATEMENT OF
COMMISSIONER AJIT PAI
CONCURRING IN PART AND DISSENTING IN PART

Re: *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

Too many rural Americans have waited too long for high-speed Internet access. The FCC promised broadband throughout rural America five years ago when it started reforming the Universal Service Fund¹—a promise that echoed our duty to “make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.”²

Progress since then has been halting, especially for those residing in areas served by the nation’s rural telephone companies. That’s because of a quirk of regulatory history: Our rules governing small, rural carriers provide universal service support only to networks that supply telephone service, not stand-alone broadband service.

That regulatory system has put some carriers to a Hobson’s choice. On one hand, they can offer stand-alone broadband—which urban consumers have and rural consumers want—and lose universal service support. On the other, they can deny consumers the option of an Internet-only service, and risk them dropping service altogether (which they increasingly are). The net result is that rural carriers hold back investment because they are unsure if they can deploy the next-generation services that consumers are demanding.

That’s why three years ago, I called on the FCC to support stand-alone broadband service and establish a Connect America Fund for rate-of-return carriers.³ That’s why two years ago, I was glad that my colleagues agreed with me to “propose a stand-alone broadband funding mechanism for rate-of-return carriers serving the highest-cost reaches of our country” in the *Seventh Recon Order*.⁴ And that’s why in June last year, I put my own plan on the table, calling for “targeted changes to existing universal service rules” coupled with “a path so that rate-of-return carriers that want to participate in the Connect America Fund can do so.”⁵ My plan was simple enough that the rules fit on a single page and could have been adopted last summer.

I wasn’t alone in thinking a simple fix was the best one. A bipartisan supermajority of 61 U.S. Senators, led by John Thune, Amy Klobuchar, and Deb Fischer, wrote in May 2015 that “no new models

¹ *Connect America Fund et al.*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17667, para. 1 (2011) (*Universal Service Transformation Order*) (“Today the Commission comprehensively reforms and modernizes the universal service and intercarrier compensation systems to ensure that robust, affordable voice and broadband service, both fixed and mobile, are available to Americans throughout the nation.”).

² Communications Act § 1.

³ Remarks of Commissioner Ajit Pai before the NTCA 2013 Legislative and Policy Conference at 2 (2013), available at <http://go.usa.gov/cAMXJ>.

⁴ *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking, 29 FCC Rcd 7051, 7137, para. 269 (2014) (*Seventh Recon Order*); *id.* at 7251 (Statement of Commissioner Ajit Pai, Approving in Part and Dissenting in Part).

⁵ Statement of FCC Commissioner Ajit Pai Announcing His Plan to Support Broadband Deployment in Rural America at 1–2 (2015), available at <http://go.usa.gov/cAM5Y>.

or sweeping changes are needed to adopt and implement a targeted update to fix the [stand-alone broadband] issue . . . instead a simple plan that isolates and solves this specific issue is all that is needed right now.”⁶ Similarly, Congressman Kevin Cramer and 114 other members of the U.S. House of Representatives warned that “previous USF reform stumbles have hindered rural broadband investment” and urged instead “an immediate, targeted solution.”⁷ And my colleague Commissioner Jessica Rosenworcel warned that “when you add the piece parts of our reform together—and they are manifold—what we have is extremely complex,” which “can deny carriers . . . the certainty they need to confidently invest in their network infrastructure.” Instead, she hoped “we can craft rules in a way that ultimately reduces complexity and uncertainty.”⁸

So it is with some trepidation that I met the circulation of this 237-page *Order*. Yes, it changes our accounting rules to support stand-alone broadband. Yes, it opens a path for rate-of-return carriers to volunteer for the Connect America Fund’s alternative cost model (the A-CAM). And yes, it does these things without a “new mechanism that replaces the old HCLS and ICLS mechanisms”—without, that is, the bifurcated approach that many rural carriers feared and that FCC leadership proposed last fall.⁹ To the extent it accomplishes these tasks, I concur in part.

But the changes the *Order* makes to our Universal Service Fund are anything but simple. Take the stand-alone broadband mechanism. To calculate the support provided by that mechanism, a carrier must (1) determine the historical costs of providing broadband-only loops (defined “on a per-line basis, as the costs that are currently recoverable for a voice-only or voice/broadband line in ICLS”)¹⁰, (2) apply the new limits on operating expenses,¹¹ (3) apply the old limits on corporate operations expenses,¹² (4) apply the new limits on capital expenses,¹³ and (5) subtract an imputed charge of up to \$42 per broadband-only loop to determine the initial support amount.¹⁴ A carrier then must (6) disaggregate support for non-competitive areas using one of four separate methods,¹⁵ (7) add back a portion of the disaggregated support for competitive areas during a transition period,¹⁶ (8) subtract a per-line budget reduction,¹⁷ (9) apply a pro rata budget reduction,¹⁸ (10) apply the monthly per-line limit on universal service support, if applicable,¹⁹ and (11) subtract the difference between that carrier’s old Interstate Common Line Revenue Requirement and what would have been its Interstate Common Line Support (ICLS) after

⁶ Letter from John Thune, U.S. Senator, et al., to the Honorable Thomas Wheeler, Chairman, FCC, at 1 (May 12, 2015).

⁷ Letter from Kevin Cramer, Member of Congress, et al., to the Honorable Thomas Wheeler, Chairman, FCC, at 1 (May 12, 2015).

⁸ *Seventh Recon Order*, 29 FCC Rcd at 7250 (Statement of Commissioner Jessica Rosenworcel).

⁹ Remarks of FCC Chairman Tom Wheeler as Prepared for Delivery, NTCA Fall Conference, Boston, Massachusetts at 5 (2015), available at <http://go.usa.gov/cAM5B>.

¹⁰ *Order* at para. 88; new rule 54.901(a).

¹¹ *Order* at para. 98; new rule 54.901(b).

¹² New rule 54.901(c).

¹³ *Order* at para. 111; new rule 54.901(b).

¹⁴ *Order* at para. 92; new rule 54.901(a)(2).

¹⁵ *Order* at para. 138; new rule 54.319(e).

¹⁶ *Order* at para. 145; new rule 54.319(f)–(g).

¹⁷ *Order* at para. 153; new rule 54.901(f)(2).

¹⁸ *Order* at para. 153; new rule 54.901(f)(3).

¹⁹ Rule 54.302(a).

applying these reforms.²⁰ Those 11 steps are hardly straightforward calculations—and hardly something a rural telephone company can do without hiring yet another accounting consultant.

Believe it or not, the complexity only increases as you go further down the rabbit hole. Consider the new limits on operating and capital expenses in steps two and four. For operating expenses, the *Order* invents double log regression analysis (DLRA) benchmarks that compare similarly situated rate-of-return carriers based on their size and density—or more precisely the natural log of each carrier’s operating expenses per housing unit to the natural log of the housing units in a carrier’s area, the natural log of the density of that area, and the square of the natural log of the density of that area.²¹ For capital expenses, the *Order* creates a limit on Annual Allowable Loop Plant Investment (AALPI) equal to 15% of a carrier’s inflation-adjusted accumulated depreciation plus 5% of a carrier’s inflation-adjusted total loop investment, adjusted to account for at least eight different factors.²² To calculate the results of these new expense limits is no easy task. To foresee their impact on carrier operations and the deployment of broadband—the mind boggles.

The *Order* promises that the new limits will give carriers “sufficient incentive to be prudent and efficient in their expenditures.”²³ But if past is prologue, I wouldn’t count on it. Compare the DLRA benchmarks and the AALPI limit to the FCC’s last attempt to limit operating and capital expenses so that carriers would “operate more efficiently and make prudent expenditures”²⁴: the quantile regression analysis (QRA) benchmarks. Like the DLRA benchmarks, the QRA benchmarks relied on a regression analysis to compare similarly situated companies. Like the AALPI limit, the QRA benchmarks relied on a large number of factors to try and accommodate differences between carriers. And like both, the QRA benchmarks were not designed to save the Fund a dollar. We know the QRA benchmarks chilled the investment climate and impeded the deployment of broadband to rural Americans.²⁵ I can only hope the sequel has a different ending.

The truth is I don’t know whether this *Order* will help or hinder broadband deployment in rural America. No one does. That’s in part because FCC leadership has deliberately left the public in the dark.

For example, the Commission did not propose adopting new operating expense limits on rate-of-return carriers in its *Seventh Recon Order* (the predicate for most of the rules adopted herein²⁶), and never even sought comment on the DLRA benchmarks adopted in this *Order*. The genesis of the proposal appears to be an ex parte filing that “responded to concerns expressed by the Bureau [about] proposing

²⁰ *Order* at para. 155; new rule 54.901(e)(1) & (3).

²¹ *Order* at para. 99; new rule 54.303(a).

²² *Order* at paras. 110–14; new rule 54.303(b)–(m) (adjustments include a broadband-deployment adjustment, a construction-allowance adjustment, a loop-cap-adjustment factor, a construction-limitation factor, an excess-loop-plant-investment carry forward, a no-wireline-facilities adjustment, a grant-funds adjustment, a loan-funds-disbursed adjustment, a contracted-construction-project adjustment, and a minimum-annual-allowed-loop-plant-investment adjustment).

²³ *Order* at para. 6.

²⁴ *Universal Service Transformation Order*, 26 FCC Rcd at 17742, para. 210.

²⁵ Letter from John Charles Padalino, Acting Administrator, Rural Utility Service, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 07-135, 05-337, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, WT Docket No. 10-208, at 1–2 (Feb. 15, 2013).

²⁶ Although the *Seventh Recon Order* gave clear notice of some proposals, *see, e.g.*, 29 FCC Rcd at 7137, para. 269 (proposal to support stand-alone broadband); 7139–45, paras. 276–99 (proposal to allow a voluntary transition to model-based support), others are at best an outgrowth, logical or not, *see, e.g.*, *Order* at para. 160 (pinning the adoption of broadband deployment obligations on the FCC’s expressed desire to “renew a dialogue regarding the best way to encourage continued investment in broadband networks throughout rural America,” 29 FCC Rcd at 7134, para. 258).

potential limits on operating expenses.”²⁷ The Administrative Procedure Act, however, contains no exception to its notice-and-comment requirements for rules proposed by outside parties at the behest of agency staff in a nonpublic meeting.²⁸

Another example: I’ve heard from rural advocates that it’s hard to understand what these reforms mean for rural broadband deployment without seeing the details. As the head of NTCA—The Rural Broadband Association said last month, “With any change of this magnitude . . . there is always a concern that it not be too complex and of course that it not disrupt the ability to serve customers. It will be absolutely essential to see the written words on the page and review the specific terms of the order to understand the actual effectiveness of the reforms and how all the moving parts will affect the ability of smaller providers to keep delivering on our national promise of universal service.”²⁹ Small, rural carriers from across the land have echoed those sentiments. And so do the American people, who rightfully think it bizarre that the federal government enacts major plans before letting them see what’s in it.

That’s why I asked the Chairman’s Office to release the text of this reform plan to the public in February. I am grateful to Commissioner O’Rielly (who played a leading role in creating the plan) for his support. But unfortunately, FCC leadership denied that request.

We should level with rural Americans before springing our “help” upon them. When the agency previously ignored their concerns, we ended up reconsidering our decisions in the *Universal Service Transformation Order* seven separate times. I fear we are making that same mistake again. Given this lack of transparency—given the limited feedback the public has been able to provide my office on the likely effect of these reforms—I cannot support their adoption.

And I must dissent on one more point. Just two months ago, four commissioners agreed that “advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion” because “one in ten Americans lacks access to 25 Mbps/3 Mbps broadband.”³⁰ Indeed, we found that 34 million Americans lacked access to 25 Mbps broadband, with a “stark contrast in service between urban and rural America.”³¹ Having concluded as much, the statute requires us to “take immediate action to accelerate deployment of such capability.”³²

And yet, the Commission ignores that congressional directive here and declines the invitation to take immediate action to accelerate deployment of 25 Mbps broadband. Rather, carriers must deploy only

²⁷ Letter from Gerard J. Duffy, WTA Regulatory Counsel, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (May 29, 2015).

²⁸ See, e.g., 5 U.S.C. § 553(b); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983) (An agency “must *itself* provide notice of a regulatory proposal. Having failed to do so, it cannot bootstrap notice from a comment.” (emphasis in original)); see also *Prometheus Radio Project v. FCC*, 652 F.3d 431, 450 (3d Cir. 2011) (explaining that a proposal “not published in the Federal Register” expressing the views of a party but “not the Commission” does not satisfy the APA’s requirements). Nor can I find an exception to the Paperwork Reduction Act or the Small Business Paperwork Relief Act that lets the agency direct small, rural carriers to submit additional paperwork to USAC, see *Order* at note 204, without first proposing a rule and going through the appropriate information collection review process. See, e.g., 44 U.S.C. § 3506(c)(2), (4).

²⁹ NTCA, NTCA Responds to Chairman Wheeler’s USF Reform Blog (Feb. 19, 2016), available at <https://www.ntca.org/2016-press-releases/ntca-responds-to-chairman-wheelers-usf-reform-blog.html>.

³⁰ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 15-191, 2016 Broadband Progress Report, 31 FCC Rcd 699, 701, para. 4 (2016) (2016 Broadband Progress Report).

³¹ *Id.* at 750, paras. 120–21.

³² Telecommunication Act of 1996, § 706(b).

10 Mbps broadband using their new stand-alone broadband support.³³ The 10 Mbps standard determines the amount of stand-alone broadband funding a carrier receives,³⁴ the amount it must invest in new facilities,³⁵ the estimated cost of those facilities,³⁶ and whether a carrier must invest in new facilities at all.³⁷ It determines whether a carrier may participate in the model-based support,³⁸ whether a carrier may receive model-based support in a particular area,³⁹ and all of a carrier's interim buildout milestones.⁴⁰ And it determines whether an unsubsidized competitor reduces a carrier's stand-alone broadband support or model-based support.⁴¹

To be fair, the 10 Mbps standard is not the only one used. The *Order* does promise that in lower-cost areas (*i.e.*, those “fully funded” by the model) where the rate-of-return carrier elects model-based support, a group of rural consumers (no more than 75%) will receive 25 Mbps broadband—by 2026.⁴² In other words, a decade from now a subset of a subset of a subset of rural consumers will get access to the broadband speeds that 96% of urban Americans can purchase today. That's unacceptable.

I implored my colleagues to change course. A few months ago, a majority of the Commission happily lectured us that “broadband” means 25 Mbps connectivity. If that's now the standard, don't we have a duty to support 25 Mbps broadband in rural America? If 25 Mbps broadband is “table stakes” for the 21st century,⁴³ shouldn't we give rural Americans a seat at the table? If we “have a moral and statutory obligation to do better” when “nearly 34 million Americans [can't] get high-speed fixed broadband even if they want[] it,”⁴⁴ don't we have a moral and statutory obligation to in fact *do better*?

But my request for equal digital opportunity was specifically rejected. FCC leadership made clear that the agency would not vote to give rural Americans a fair shake by giving them the same speeds their urban counterparts often enjoy. For all the talk of hypothetical fast lanes, the FCC consigns rural America to the actual slow lane.

For these reasons, I concur in part and dissent in part.

³³ New rule 54.308(a)(2) (“Rate-of-return recipients of Connect America Fund Broadband Loop Support (CAF BLS) shall be required to offer broadband service at actual speeds of at least 10 Mbps downstream . . .”).

³⁴ *Order* at para. 92 (calculating the stand-alone broadband benchmark based on the estimated costs and revenues of 10 Mbps broadband); *id.* at para. 109 (adjusting AALPI limit based on relative broadband availability).

³⁵ New rule 54.308(a)(2)(i) (defining the amount of support required for buildout based on a carrier's deployment of 10 Mbps broadband).

³⁶ New rule 54.308(a)(2)(ii) (defining the estimated cost per location of new facilities based on the estimated cost of deploying 10 Mbps broadband).

³⁷ New rule 54.308(a)(2)(i) (declining to require any support be used to buildout new facilities for carriers with 80% of more deployment of 10 Mbps broadband).

³⁸ *Order* at para. 66 (“[W]e will not make the offer of model-based support to any carrier that has deployed 10/1 broadband to 90 percent or more of its eligible locations in a state . . .”).

³⁹ *Order* at para. 56 (“We . . . direct the Bureau to exclude from the support calculations those census blocks whether the incumbent . . . is offering voice and broadband service that meets the Commission's minimum standards . . .”).

⁴⁰ *Order* at para. 32 (“As shown in the chart below, we require carriers receiving model-based support to offer to at least 10/1 Mbps broadband service to 40 percent of the requisite number of high-cost locations in a state by the end of the fourth year, an additional 10 percent in subsequent years, with 100 percent by the end of the 10-year term. We do not set interim milestones for the deployment of broadband speeds of 25/3 Mbps . . .”).

⁴¹ *Order* at paras. 59, 124.

⁴² New rule 54.311(d).

⁴³ See, e.g., Prepared Remarks of FCC Chairman Tom Wheeler at 1776 Headquarters, Washington, DC, “The Facts and Future of Broadband Competition” at 3 (Sept. 4, 2014).

⁴⁴ 2016 *Broadband Progress Report*, 31 FCC Rcd at 774 (Statement of Chairman Tom Wheeler).

**STATEMENT OF
COMMISSIONER MICHAEL O'RIELLY**

Re: *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

Today the Commission adopts timely and meaningful reforms to the rate-of-return portion of the universal service high-cost program. In doing so, it furthers the goal of universal service in all regions of the nation. The actions taken in this order will provide stability and certainty for carriers to invest in broadband and expand service for consumers in rural America. It is the right thing to do, and I am proud to support this order.

For more than a year, we have worked on a specific effort to achieve a long-lasting, fiscally responsible, and forward-leaning system that enables all rate-of-return carriers to obtain Federal support to build out broadband and connect many unserved Americans in their communities. From the start, I was convinced that with some hard work, creative thinking, and compromise from everyone – including FCC Commissioners – we could find a path forward. Therefore, considerable time was spent with rate-of-return carriers and their associations to understand detailed concerns and potential issues with a myriad of proposals. I personally traveled around the country to meet with the small carriers that serve some of the most rural and remote parts of America. It was a privilege to hear their unique perspectives. I also credit the trade associations who put in a tremendous effort on behalf of their members to distill, refine, and test various ideas. To date, this has been the most open, inclusive, and collaborative process I have experienced at the FCC.

With more than 1,100 rate-of-return study areas involved, it was clear that no single approach to reform would work. Carriers vary immensely in terms of size, geography, service offerings, investment and deployment cycles, and policy preferences. For instance, some providers felt that standalone broadband would be critical to their future success while others I spoke with had no plans to offer it. Certain carriers were adamant about moving to a model-generated support system while others could not fathom operating under a different regulatory structure than the one they are familiar with today. Therefore, we needed to provide optionality, while ensuring that all paths contain appropriate incentives to deploy broadband, and in a cost-effective manner.

Thanks to many productive conversations, we created a package of reforms designed to resolve the standalone broadband issue while at the same time fixing existing problems with the current system, providing flexibility for carriers, and including appropriate transitions. In particular, this effort will improve incentives to invest in broadband, establish requirements to extend rate-of-return carriers' reach to unserved consumers, better target funding to where it is needed most while being cognizant of prior investments, prevent funding areas where competition exists, and provide a completely voluntary path to model-based support for carriers who have actively sought it.

I am particularly grateful that we were able to reach agreement on defined buildout obligations for both the legacy and model paths. This will ensure steady progress in connecting unserved Americans, which was a chief goal of mine in undertaking this reform effort since we are stewards for the contributions made by American ratepayers. Moreover, carriers will be reporting geocoded locations as they build out, which will enable us to map progress nationwide, providing more accountability and transparency, including to consumers that pay in to universal service, as to how the funding is being used. It also means we will be able to further streamline existing reporting requirements, removing additional burdens from small providers.

In addition, the item provides all carriers with a totally voluntary option to self-identify areas that would be uneconomic for them to serve within the next 10 years. These are the rate-of-return "RAF-like" areas that I have spoken of in the past. By providing carriers complete discretion to identify at least some

of these areas now instead of waiting up to 10 years from now to inventory who didn't get served, the Commission may be able to find another way to bring service to those consumers sooner.

As is expected with any compromise document, there are certain things I would have done differently, and it is only natural that others would feel the same. For example, I am hesitant to commit to additional reforms for Tribal lands until we can understand the impact of the reforms we adopt today in better targeting funding to unserved areas, or until the Remote Areas Fund is finalized, as that too is sufficiently intertwined with bringing service to American Indians. Moreover, I pushed hard to include reforms particularly pertinent to the Alaskan rate-of-return carriers. In the end, my colleagues and I settled on a slightly delayed timeline of completing it by the second quarter of this year, which turned out to be acceptable to the affected carriers and the Alaska Congressional delegation. Further, while I support the rulemaking to eliminate specific, bright-line categories of expenses that are not tied to the provision of service (e.g., artwork and cafeterias), other accounting proposals could possibly lead us down an over-regulatory path or may be just unnecessary. In addition, I have previously expressed skepticism regarding the Commission's use of predictive judgments, which is contained within the item. On balance, however, the benefits of specific components combined with finally completing a meaningful set of reforms easily mitigates these concerns in my view.

It is my hope that this solid foundation will provide the predictability so desperately needed by rate-of-return carriers, eliminating the need revisit the issue in the near future. At the same time, I commit to working with the providers and their associations to promptly address any legitimate issues that arise after the order is released.

In closing, I extend a special thanks to my colleagues, Chairman Wheeler and Commissioner Clyburn, for being patient with me. More importantly, this item couldn't have been completed without the small but able and hardworking team within the Wireline Competition Bureau, especially Carol Matthey, who deserve our appreciation for the work they have done and the implementation issues they now have before them